



City & County of San Francisco | **PROPOSED CAPITAL PLAN FY 2007-2016**

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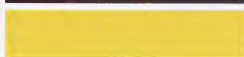
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*Section* **1** | Executive Summary / Plan Overview

## Executive Summary / Plan Overview

### A. Introduction

On the centennial of the 1906 earthquake, it is appropriate that the City and County of San Francisco is renewing efforts to invest in city facilities and infrastructure through the development of its first ten-year capital expenditure plan. While six-year plans were common throughout the 1980s, the last multi-year capital plan was prepared in September 1991. Since that time, while significant investments and capital improvements have proceeded, San Francisco has made capital expenditures in the absence of a comprehensive and clear citywide strategy.

A *constrained* plan means that all infrastructure needs are identified as funded or deferred.

Concerns from city leaders and citizens and the focus of Mayor Newsom and the Board of Supervisors culminated in legislation requiring the City to annually develop and adopt a ten-year *constrained* capital expenditure plan for city-owned facilities and infrastructure. In so doing, the legislation requires policy-makers and city staff to develop a long-term, holistic, approach to capital investments and financing; provides a flexible tool that is able to adjust to changes in policy and unforeseen circumstances; and ensures the plan's relevance by requiring that all capital expenditures be reviewed in light of the adopted capital expenditure plan.

The ten-year capital plan will be updated every year, with the intent of improving upon the product of the prior year and retaining the flexibility to respond to emerging needs.

The City and County of San Francisco Capital Plan FY 2007-20016 (referred to as the ten-year plan or Plan) is the first effort to meet these goals. The City's ten-year capital plan is not intended to be a static document. Each year the City Administrator's Office and the City's Capital Planning Committee – working with the Department of Public Works, other city agencies, and interested stakeholders – will refine the plan to reflect improved information, changes in priorities, emerging needs, and new ideas. Throughout this document, areas are noted where additional planning, information, and analysis will appear in future plans. This year's plan lays the groundwork and begins the important process of addressing the City's capital investment requirements to ensure the safety of its residents, employees, and visitors, and the delivery of quality public services.

The remainder of this section includes the following items:

- Planning process and methodology discussion that describes how the plan was developed and includes definitions for key terms (subheading B).
- Brief overview of citywide capital investments followed by more specific information and highlights for the General Fund and Enterprise department programs (subheading C, D, and E).
- A description of what to expect in the FY 2008-2017 Capital Plan that will be presented next year (subheading F).

## B. Planning Process and Methodology

### 1. Planning Process

In August of 2005 the Board of Supervisors and Mayor approved legislation that revised Section 3.20 and 3.21 of the Administrative Code (the relevant Administrative Code Sections are included in the Appendix). It specifically states: By March 1 of each year, the City Administrator shall annually submit to the Mayor and Board of Supervisors a ten-year capital expenditure plan which shall include an assessment of the City's capital infrastructure needs, investments required to meet the needs identified through this assessment, and a plan of finance to fund these investments. By May 1 of each year, the Mayor and Board of Supervisors shall annually review, update, amend, and adopt by resolution the ten-year capital expenditure plan.

The deadline for preparation of the first plan was extended until May 1<sup>st</sup> for this year's capital plan. Future plans will be submitted to the Mayor and Board on March 1 of each year.

The Capital Planning Committee (CPC) consists of the City Administrator as chair, the President of the Board of Supervisors, the Mayor's Finance Director, the Controller, the City Planning Director, the Director of Public Works, the Airport Director, the Executive Director of the Municipal Transportation Agency, the General Manager of the Public Utilities System, the General Manager of the Recreation and Parks Department, and the Executive Director of the Port of San Francisco. The mission of the Capital Planning Committee is to review the proposed capital expenditure plan and to monitor the City's ongoing compliance with the final adopted capital plan. As such, the Capital Planning Committee shall (1) establish prioritization and assessment criteria to assist the City Administrator with the development of the capital expenditure plan, (2) annually review the City Administrator's proposed capital expenditure plan prior to its submission to the Mayor and Board of Supervisors, and (3) review the annual budget and any proposed use of long-term debt, including General Obligation bonds, to ensure compliance with the plan.

Under direction of the City Administrator, department staff is annually assigned to assess facility conditions; determine annual renewal cost projections and proposed enhancements within the ten-year horizon. Using criteria designated by the CPC, staff analyzes available funding resources and prepares a ten-year capital plan.

Through a series of meetings the CPC reviews proposals, staff recommendations, and documents toward the development of a citywide capital plan. These reviews do not, and are not meant to, replace the authority of department commissions' or other oversight bodies under the City Charter and other codes. Rather, the ten-year plan is meant to provide a forum that looks at capital needs from a citywide perspective and to fosters a dialogue on those needs between stakeholders, commissions, and the Board of Supervisors.

## **2. Methodology**

Staff used two approaches to collect data for the Plan. For good repair and maintenance of facilities and infrastructure (also known as renewals), a facility life-cycle model to collect information was implemented for all of the General Fund departments. For new projects or enhancements, data was gathered through meetings and requests for information from department staff and through analysis of prior year capital budget requests and bond proposals.

### ***Facility Modeling***

To develop the plan, the City contracted with a firm specializing in developing capital reinvestment models for governments and institutions. The methodology and findings of the study are based upon an analytical approach developed by The Pacific Partners Consulting Group (referred to as the Facilities Renewal Resource Model or FRRM™). A report was developed presenting the results of the Facilities Renewal Reinvestment Study; this data was incorporated into this proposed plan.

The objectives of the study were to:

- i. Develop a budget model to predict annual funding requirements for facilities renewal and document the existing backlog of deferred maintenance in a consistent way for all departments.
- ii. Provide a basis for a funding plan that will first address adequate resources for renewal and then a reduction of the deferred maintenance backlog.
- iii. Create consistent and comparative data among departments for determining funding allocations and targets for addressing renewal as a part of operating or capital budgets.
- iv. Deliver a cost model to each department with associated staff training so that facilities renewal and DM needs can be updated annually and progress in meeting those needs can be measured.
- v. Provide a planning tool for departmental use which provides a useful life "systems" profile of each building, as a way of predicting future funding needs or packaging projects to leverage fund sources.
- vi. Develop a credible model to assess needs in a consistent and ongoing manner that will focus on total funding needs and strategies.

The FRRM model was used to create the renewal graphs in Section 2. These renewal graphs predict the dollar value and approximate date when large building sub-systems (HVAC, roofs, building exteriors, etc.) need to be replaced.

The model uses San Francisco building information (gross square feet, construction date, facility subsystem type), and an approach based on subsystem

life cycles and replacement costs to estimate the backlog of deferred maintenance and future capital reinvestment needs.

Each department will maintain the model, with the capability of summarizing information at both the department and citywide level. The model has a great deal of built-in flexibility that allows the city to enter new data and even change the underlying assumptions in future years.

This report reflects the data collected from November 2005 through February 2006, and includes detailed information for each General Fund department. These findings are summarized in the renewal graphs and the renewal line of the financial summary schedules for each of the General Fund areas found in Section 2 of this report.

### 3. General Terms

The Plan distinguishes between two types of capital expenditures, renewals and enhancements.

**Renewals** are investments in the maintenance or upkeep of facilities and infrastructure to preserve or extend its useful life – so called “good repair” investments that keep capital assets in good working order. These involve the repair and replacement of subsystems that comprise the facility such as roofs, heating and cooling systems, and building interiors and exteriors. Since these tend to be smaller investments compared with investments needed to replace entire facilities, the proposed plan funds the majority of these needs through pay-as-you-go cash revenue sources, typically appropriated through the City’s annual budget process.

The Plan makes recommendations to begin to address annual funding shortages by starting with a large initial General Fund investment that will continue to grow by approximately ten percent (five percent plus inflation) over the next ten years. This approach allows the City’s annual cash investment in renewals to nearly match its annual cash needs in the final year of the plan. It is worth noting that even with this growth, a maintenance backlog of over to \$600 million is still deferred beyond the ten-year planning cycle. The new level of annual investments is, however, a critical first step to stopping the growth—and beginning to address—the **deferred maintenance backlog**.

**Enhancements** are investments resulting from the passage of new laws or mandates, functional changes, or technological advancements. While these can be small-scale projects such as the addition of ramps to comply with the American’s with Disability Act (ADA) requirements, they typically involve large-scale multi-year projects such as remodels, renovations, additions or new facilities. While annual

*Ignoring renewal investments result in greater costs as buildings become less efficient, more costly to repair, and don’t last as long.*

*The deferred maintenance backlog is the result of many factors including the aging of City facilities built in the 1950s, the loss of federal, state, and local revenues for road resurfacing, and the lack of dedicated funds to keep buildings in good working order.*

funds can cover some of these projects, most require debt financing through the issuance of General Obligation (G.O.) bonds, Certificates of Participation (C.O.P.s) or lease revenue bonds. By borrowing funds and repaying facility costs over longer timelines, this approach facilitates "generational equity" through by spreading costs to all users who will benefit from a long-term facility improvement or other asset. Enhancement projects are considered in the debt program.

**Fiscal years (FY)** in the Plan refer to the calendar year in which the City's July 1 to June 30 budget cycle ends. For example, FY 2007 equals the calendar year dates from July 1, 2006 to June 30, 2007.

### C. Citywide Plan Overview

The Plan proposes total investments for the period between FY 2007 and FY 2016 of \$15.7 billion to address the wide variety of critical capital needs of the city's water and sewer systems, port and airport, mass transit and roadway network, and parks and plazas, and city-owned buildings and telecommunication infrastructure. These investments preserve and in some cases modernize the facilities citizens rely upon for critical public health, public protection, and other basic services. The proposed funding levels for these services are summarized below.

<b>Proposed Capital Plan Summary</b>			
<b>(Dollars in Millions)</b>			
	<b>FY 2007 - FY 2011-</b>	<b>FY 2012 - FY 2017</b>	<b>Total</b>
<b>General Fund Departments</b>			
Criminal Justice	763	181	944
Fire Protection and Emergency Response	119	22	141
Public Health and Human Services	910	102	1,012
Recreation and Parks	231	216	447
Streets and Right of Ways	194	265	459
Library System	50	8	58
Arts and Conventions	34	153	187
Office and Support	18	56	74
	<b>\$2,319</b>	<b>\$1,003</b>	<b>\$3,322</b>
<b>Enterprise Departments</b>			
Public Utilities	3,991	3,208	7,199
Airport	765	371	1,136
Port	336	78	414
Municipal Transportation	1,972	1,614	3,586
	<b>\$7,064</b>	<b>\$5,271</b>	<b>\$12,335</b>
<b>Citywide Totals</b>	<b>\$9,383</b>	<b>\$6,274</b>	<b>\$15,657</b>

The focus of this year's capital plan is on the General Fund program. Unlike the enterprise program, only two of the General Fund departments have capital planning staff that can regularly assess needs and develop a capital program.

Information on specific capital investments is discussed in the next two subsections. The first is devoted to capital needs and proposed investments for the General Fund department program and the second is a brief review of the needs and investments of the enterprise department program.

## D. General Fund Department Program Summary

Since 1986, San Francisco has issued over \$2 billion in G.O. Bonds to complete seismic upgrades, major renovations, modernization, and new facilities throughout the City. Many of these improvements are easily recognizable including the seismic upgrade and modernization of Police and Fire facilities, City Hall, Recreation and Park facilities, Main and Branch Libraries, Laguna Honda Hospital, 911 Emergency Operation Center, and Justice facilities. In addition, the City has formed partnerships with philanthropic partners to improve many of the major cultural institutions such as the Opera House, Zoo, Academy of Science, Asian Art Museum, and Conservatory of Flowers.

While San Francisco has completed significant improvements to targeted facilities and infrastructure during the past two decades, significant capital needs remain. The plan for General Fund facilities and infrastructure, discussed in additional detail in the section 2, proposes investments of \$3.3 billion to meet critical needs during the coming ten years. These investments will achieve the following improvements to public protection and public health facilities, roadways, and parks, as summarized in the table below.

<b>General Fund Capital Plan Summary</b>				
<b>(Dollars in Millions)</b>				
	<b>FY 2007 - FY 2011</b>	<b>FY 2012 - FY 2017</b>	<b>Total</b>	<b>Percent</b>
Criminal Justice	763	181	944	28.4%
Fire Protection and Emergency Response	119	22	141	4.2%
Public Health and Human Services	910	102	1,012	30.5%
Recreation and Parks	231	216	447	13.5%
Streets and Right of Ways	194	265	459	13.8%
Library System	50	8	58	1.7%
Arts and Conventions	34	153	187	5.6%
Office and Support	18	56	74	2.2%
	<b>\$2,319</b>	<b>\$1,003</b>	<b>\$3,322</b>	<b>100.0%</b>

While the project and program needs identified in the Plan represent critical investments in General Fund department facilities and infrastructure, the list of potential projects is not exhaustive. At the end of most of the departmental sections, areas for additional review are noted. These emerging needs – along with others identified through the development of future year plans – will be included and updated in future plans.

## 1. General Fund Program Highlights

The Plan proposes to meet critical project needs using a mix of both debt and pay-as-you-go sources. Most major projects, outlined below and discussed in more detail in section two of this report, have been funded using G.O. bonds, lease revenue bonds, and other sources of debt. Given the long useful lives of these improvement projects and that the project costs exceed the ability to utilize pay-as-you-go revenue sources, it is appropriate to use debt financing. The use of debt also serves to spread out the financial burden of paying for facilities between current and future generations that will both receive its benefits.

Based on the prioritization criteria drafted by staff, the Plan proposes to address the following critical infrastructure needs during the ten-year period:

- **Earthquake Safety Improvements at Critical City Facilities.** Seismic safety projects required to ensure that city facilities are safe and functional in the event of an earthquake have been heavily prioritized in the plan. The plan proposes \$1.6 billion to address seismic improvement needs at key facilities.

While the two highest identified priorities are the replacement of San Francisco General Hospital and the Hall of Justice, proposed seismic improvements are also recommended for the city's fire protection high-pressure hydrant system and fire boat station, renovation of two Civic Center facilities, and more modest seismic improvements needs at the corporate yards for several departments.

- **Disability Access Improvements.** Accessibility of city facilities for individuals with disabilities is a key priority and need identified in the ten year capital plan. The Americans with Disabilities Act (ADA) facility transition plan will be submitted to the Board of Supervisors in the coming several months – the proposed plan fully funds that plan with a \$30 million recommended General Fund investment over the coming seven years. Additionally, the plan proposes to dramatically increase the investment in curb ramps during the ten-year planning horizon.
- **Renovations and Improvements to the City's Park System.** The plan reflects a recently approved financing proposal to fully fund the remaining Phase I "on hold" projects. The plan proposes approximately \$450 million in system wide work – funded predominantly with two \$150 million G.O. bonds – during the coming ten years to address critical system wide needs. The department needs to prioritize these funds to provide seismic, life-safety, disability access, and targeted facility enhancement with these funds.

A copy of the prioritization criteria is in the appendix of this report. This information was shared and discussed at the CPC but never formally approved.

- **Near-Term Capital Commitments.** Needs to construct new police and fire stations in Mission Bay and to relocate the city's crime lab to a new site outside of the Hunters Point redevelopment project area are both funded in the first several years of the proposed plan through the use of \$40 million in General Fund debt issuances. These projects are required in the next five or so years to complete or proceed with redevelopment of those areas.
- **Improved Investment in State of Good Repair Renewal Investments in City Facilities and Streets.** Overall investment levels in the ongoing maintenance and renewal of our facilities and right of ways are increased gradually over the life of the ten-year capital plan. Year one addresses 60 percent of the estimated annual programs for these assets. This grows to 89 percent of the annual program total by year ten. While this increased investment represents dramatic increases from past years, it requires the deferral of approximately \$316 million into future years. Additionally, these investments do not reduce existing backlogs of approximately \$900 million in deferred maintenance.

Additional information on these programs and others is in section 2 of the Plan.

## 2. Debt Financing Program

The General Fund program proposes a mix of cash and debt financing sources. As discussed above, the majority of large projects are funded using proposed debt. The City utilizes three principal types of municipal debt obligations to finance long-term capital projects: general obligation (G.O.) bonds, lease revenue bonds, and certificates of participation. As required by the Administrative Code, the Plan outlines the assumed uses of debt in its financing proposals.

The City has an approved Debt Policy that can be accessed at the Mayor's Office of Public Finance.

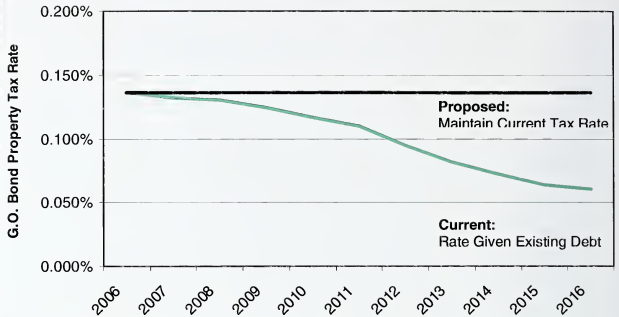
### ***General Obligation Bond Debt***

The Capital Planning Committee approved the following proposed financial constraint with respect to the use of debt:

- (a) No increase in the property tax rate used to repay issued G.O. bonds during the ten-year plan period.*** In other words, new G.O. bonds will only be used as a funding source as existing approved and issued debt is retired and the property tax base grows.

G.O. bonds are repaid using a property tax override paid by property owners. This form of debt must be approved by a 2/3<sup>rd</sup> majority of a public vote.

### Projected Rate of Current vs Proposed G.O. Bonds



The tax rate impacts of existing and proposed G.O. bond debt are illustrated above. It should be noted that the model above is for city debt, and does not account for the unknown impact of overlapping debt obligations of the school district, the community college district, and other taxing entities.

The plan proposes to seek voter approval of G.O. bonds on the following schedule, driven by the prioritization of projects discussed above.

## Proposed General Obligation Bond Schedule

(Dollars in Millions)

Year	Proposed Bond Program	Total
2008	Park System Renovation and Improvement	150
2008	San Francisco General Hospital Earthquake Safety	800
2010	Fire Protection System Earthquake Safety	89
2011	Criminal Justice Facility Earthquake Safety	535
2013	Park System Renovation and Improvement	150
2014	Public Safety Facility Modernization	68
2015	Facility Modernization and Safety	141
<b>G.O. Bond Program Total</b>		<b>1,933</b>

Three of the four proposed G.O. bonds during the first five years of the plan period are targeted to address earthquake safety and modernization needs in mission-critical public health, fire protection, and public protection facilities and infrastructure. The last bond is proposed to provide renovation and improvements to the city's park and recreation facilities given large system wide capital needs and the scheduled depletion of other funding sources in the next three years. These recommended investments are discussed in more detail in section two of this report.

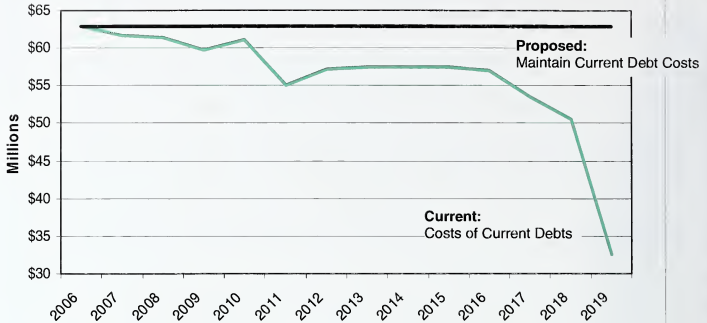
### ***Certificates of Participation and Revenue Bond Financing***

Unlike G.O. bonds, lease revenue bonds, and C.O.P.s are typically repaid out of the city's General Fund or use revenues that would otherwise flow to the General Fund.

The Capital Planning Committee approved the following proposed financial constraint with respect to the use of this type of debt:

- (b) No increase in General Fund-supported debt payments.** Stated differently, these financing instruments will only be used as a funding source as existing issues of debt is retired. This assumption allows for new General Fund operating debt of \$175 million during the coming ten-year period.

### General Fund Debt and Long-Term Obligations



The debt service costs of existing and proposed C.O.P.s and lease revenue bonds are illustrated above. New debt is proposed during the capital plan to fund required short-term commitments described above in Mission Bay and the Hunters Point Shipyard in the first three years of the plan and the renovation and seismic bracing of the Veterans Building in FY 2012.

### 3. General Fund State of Good Repair Renewal Investments and Cash Funding

The major projects described above have been largely funded using G.O. bonds, lease revenue bonds, and other sources of debt.

The plan proposes to fund ongoing, annual investment needs using cash sources. These needs – typically smaller renewal investments required to maintain our facilities and infrastructure in a state of good repair – have shorter useful lives and recur annually. Total annual investment needs during the coming ten years are summarized in the table below. These totals do not reflect deferred maintenance backlogs present today but simply the need for new investments to maintain these assets in the same state as they exist today.

## Annual Renewal Investment Needs

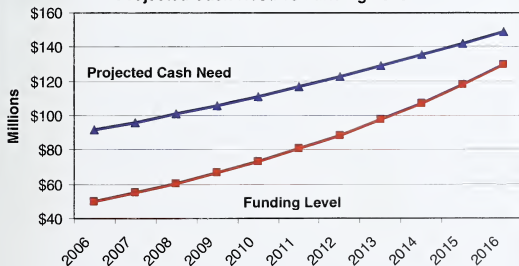
(Dollars in Millions)

	<i>Annual</i>	<i>Plan Total</i>
Routine Maintenance	10.0	126
Facility Renewal	35.9	452
ADA Facility Transition Plan	5.2	50
Streets and Right of Ways	31.3	394
Critical Deferred Maintenance	5.0	63
<b>Total Needs</b>	<b>87.4</b>	<b>1,085</b>

The city has historically underfunded these annual cash investment needs – General Fund capital programs have averaged \$25 million during the past decade to meet these annual needs, and this amount is nearly double that of the decade before. Correcting this annual underinvestment – which speeds the aging of city facilities, erodes services, and creates deferred maintenance needs in the future – will not be accomplished in several years but rather through a prolonged period of continually increasing General Fund capital investments.

The plan assumes General Fund investments of \$50 million during the first year of the plan, growing by approximately 10% annually over the life of the plan – real growth of 5% and an estimated 5% for construction inflation. This plan, if implemented by policy makers, will reduce the annual cost of work deferred during each year of the program from approximately 40% in the first year of the plan horizon to 11% in the final year of the ten-year planning period. This financial assumption – upon which the General Fund program has been based – was adopted by the Capital Planning Committee as part of this year's planning process.

**Projected Cash Need vs Funding Level**



Despite the fact that these planning targets would represent the highest cash investment in modern city history, they fall short of expected need, requiring the deferral of approximately \$316 million beyond 2017, as illustrated in the table below.

<b>Annual Renewal Investment Need vs Plan</b> (Dollars in Millions)			
	<i>Annual</i>	<i>Proposed Plan</i>	<i>Deferred</i>
Routine Maintenance	10.0	126	956
Facility Renewal	35.9	452	141
ADA Facility Transition Plan	5.2	50	1,012
Streets and Right of Ways	31.3	394	463
Critical Deferred Maintenance	5.0	63	459
<b>Total Needs</b>	<b>87.4</b>	<b>1,085</b>	<b>1,172</b>

#### **4. Deferred Projects, Emerging Needs, and Remaining Needs**

While the recommended General Fund program of \$3.3 billion meets critical, prioritized investment needs over the coming decade, significant facility and infrastructure needs remain unmet under the proposed plan. Addressing this remaining need will require difficult choices for policy makers in coming years. These deferred projects and emerging needs total approximately \$2.2 billion.

Around 62% of these projects result from underinvestment in the city's facilities and infrastructure during the past several decades. It is important to note that it would not be practical – let alone possible – for the City to address all of these needs in a single decade, even if funds were available. Too many facilities would be closed simultaneously to allow for adequate service provision, too many streets would be blocked for construction at the same time, and neither the city nor private contractors have the capacity to complete this volume of work in that period of time. More reasonable long-term policy goals for the city would be to (1) reduce the amount of work deferred in future years (a goal that is partially accomplished in this proposed plan) and (2) begin to reduce preexisting backlogs over time.

Highlights of the deferred projects and emerging needs in the Plan are discussed below. Additional information on these items can be found in section 2.

- (a) State of good repair renewal needs in city facilities (\$488 million).** The majority of these repairs needs (\$319 million or 65% of the total) exist today as a result of historical underinvestment. While the Plan proposes to dramatically reduce the deferral of future work, it does not address existing backlogs of deferred maintenance work. Future year plans will better refine

this estimate of true deferred maintenance needs, which is merely an estimate.

***(b) Renewal needs for the city's streets and right of ways (\$875 million).***

The vast majority (\$705 million or 80% of the total) of this repair needs exist today due to historic underinvestment at all levels of government. While the proposed plan dramatically reduces the deferral of future work, it does not address existing backlogs of deferred maintenance work. Future year plans will better refine this estimate of this deferred maintenance backlog, particularly for bridges, tunnels, and other street structures that have not been reviewed in recent years.

***(c) Major improvement projects and emerging capital needs (\$837 million).***

These projects represent requested improvements to city facilities that improve services, expand capacity, or respond to new policy goals. The majority of these potential projects represent emerging needs that will be developed in greater details in future plans. These facility enhancement projects are discussed in detail in section 2 of this report.

## **E. Enterprise Department Program Summary**

The legislation passed by the Board of Supervisors and approved by the Mayor mandated the development of a ten-year capital plan, which reports on all city assets including those managed by the Airport, the Metropolitan Transportation Agency (MTA), the Port, and the Public Utilities Commission. Unlike most of the General Fund departments, the Enterprise departments have dedicated systems and staff to develop capital plans. As a result, the primary focus of this version of the ten-year capital plan is on General Fund departments that for the most part do not have capital planning resources.

The enterprise department chapters discussed in Section 3 and the funding schedule on the following page are a compilation of information provided by enterprise department staff. These are based on other departmental capital planning documents and information, adjusted to provide an estimate of what each respective department expects to accomplish in the next ten years. The Airport section is largely based on their 5-Year Capital Improvement Plan, the MTA' comes from their Short Range Transit Plan FY 2006-2025, and the Public Utility Section from a wide range of planning documents for each of its major programs. The Port has created its own ten-year planning process in conjunction with the approval and publication of the City's 10-Year Capital Plan.

The earlier discussion regarding the relationship between the Plan oversight bodies in subsection B is especially relevant for enterprise departments. Appointed commissions

direct the enterprise departments with varying degrees of autonomy in connection with their capital programs. The ten-year planning process and the documents generated by department staff, and the CPC do not, and are not meant to, supplant a department commissions' authority under the Charter and other City codes. Rather, the ten-year planning document provides a citywide review of capital planning needs and is meant to foster a dialogue on those needs between the stakeholders, the commissions and the Board of Supervisors as the City forecasts needed investments in improving its facilities.

With the exception of the Port, none of the other commissions has formally reviewed or accepted the schedules or text reflected in the enterprise department chapters below. In the future, it is anticipated that each commission will approve the ten-year plan prior to its review by the Capital Planning Committee and adoption by the Board of Supervisors.

### 1. Enterprise Department Program Highlights

Capital investments by enterprise departments during the planning period are expected to be \$12.3 billion. This number represents more than three times the level of capital investments for General Fund departments. A general theme running through each of the enterprise department capital programs is the need to address infrastructure repair and replacement for structures, roads and systems that have been neglected for several years and in some cases several decades.

### Proposed Enterprise Plan Summary (Dollars in Millions)

	<i><b>FY 2007 - FY 2011</b></i>	<i><b>FY 2012 - FY 2017</b></i>	<i><b>Total</b></i>
<b><i>Public Utilities</i></b>			
Water System Improvement Program	2,499	1,048	3,547
Water	230	292	522
Wastewater	338	835	1,173
Power	924	1,033	1,957
	<b>\$3,991</b>	<b>\$3,208</b>	<b>\$7,199</b>
<b><i>Municipal Transportation</i></b>			
Public Transit	1,979	1,468	3,447
Parking and Traffic	83	56	139
	<b>\$1,972</b>	<b>\$1,614</b>	<b>\$3,586</b>
<b><i>Airport</i></b>	<b>\$765</b>	<b>\$371</b>	<b>\$1,136</b>
<b><i>Port</i></b>	<b>\$336</b>	<b>\$78</b>	<b>\$414</b>
<b>Enterprise Totals</b>	<b>\$7,064</b>	<b>\$5,271</b>	<b>\$12,335</b>

- **Airport.**

With the completion of the Airport Master Plan, the focus of the Airport's capital plan in the first years of the Plan is on renewing its airfields and terminals. Investments in the first five years includes \$765 million for a wide range of projects, such as improvements to the industrial waste treatment plant, the Terminal Upper Level Viaduct, Terminal 1 Boarding Area "B" repair, phased reconstruction and overlay of taxiways, and other high-priority projects.

Over the 10-year planning horizon, the Airport forecasts over \$1 billion in capital investments. Since many of these longer-term enhancement projects are demand-driven, several of the projects are considered preliminary. Once the Airport is comfortable with assumptions regarding air traffic growth and other business conditions, it will move forward with specific plans.

- **Municipal Transportation Agency**

The \$3.6 billion capital budget addresses 39% of the \$9.2 billion in total capital needs over the planning period. The remaining \$5.6 million is deferred from the Plan.

The overwhelming majority of capital investments in both Muni and the Department of Parking and Traffic are for renewals to their basic infrastructure and fleet programs. These include Cable Car infrastructure; vehicle and rail replacement; overhead rehabilitation; parking control enforcement vehicles; support vehicles for paint, meter, and signal shops; and improvements to traffic signs, signals, and road markings.

- **Port.**

While all of the 39 piers in use by the Port or its tenants are nearly 100 years old, only eight have been rehabilitated since 1950. In addition, the Port's property is on a high liquefaction zone and only eight of its piers and related facilities have been seismically upgraded. As a result, it isn't too surprising that the Port identified over \$1.2 billion in needed repairs, seismic upgrades and other improvements to these structures and others. The Port's has identified funding for \$414 million or 35 percent of these needs. Eighty-eight percent or \$363 million of the Port's \$414 million is for sub- and super-structure repairs to piers.

- **Public Utilities Commission**

The PUC program is the largest of the enterprise departments with estimated investments totaling \$7.2 billion.

More than \$3.5 billion of the PUC's \$7.2 billion in estimated investments is for the Water System Improvement Program (WSIP). The WSIP rebuilds and seismically retrofits the regional and local water systems, and will enhance the PUC's ability to provide reliable, affordable, high quality water to its customers in an environmentally sustainable manner.

The Water Enterprise estimates investments of \$522 million over the 10-year cycle for the renewals and enhancements to local and regional water facilities and assets. These include addressing capital needs for water pipelines, watershed protection, water meters, reservoirs, and transmission lines. This program shows a \$238 million shortfall that the PUC expects to fund through additional revenues and debt or defer from the Plan.

The Wastewater Enterprise investments over the next 10 years in sewers and wastewater facilities are projected to be \$1.2 billion. This estimate includes anticipated funding for renewal and repair of sewers, pump stations, and treatment plants as well as enhancements and other improvements to be identified in the Wastewater Master Plan.

Investments in Hetch Hetchy Power, and Hetch Hetchy Water and Wholesale Power total \$1.9 billion over the next ten years. The funds are for capital investments in streetlighting within San Francisco, redevelopment efforts to provide utility services (electric, water, and wastewater) on Treasure Island, transmission, and distribution of power, and energy efficiency with respect to Hetch Hetchy Power. They are for reservoirs and dams; water transmission; buildings, roads, and right-of-ways; and power with respect to Hetch Hetchy Water and Wholesale Power. This program shows a \$1.2 billion shortfall that the PUC expects to fund through additional revenues and debt or defer from the Plan.

## **F. Capital Program Planning Future**

This first edition of the Capital Plan brought to light some shortcomings in the process that will be addressed in future updates.

1. Over the preceding years, capital asset management and data collection declined due to lack of funding. The overwhelming lack of facility information

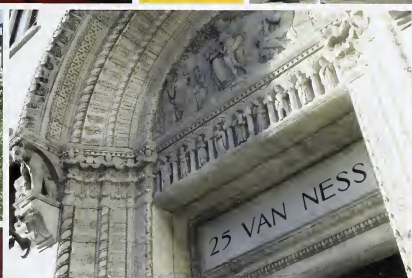
caused a delay in development of the plan and limited its scope. Although a renewal database which projects annual need was developed and implemented for this edition of the Plan, it did not cover all facilities. As a result, future plans will include the following:

- Leaseholds wherein the City is responsible for maintenance of the tenant improvements and in some cases the core and shell of a building.
- The data collection survey and FRRM model was used for General Fund facilities this year and may extend to some of the enterprise departments.
- Departments such as the Academy of Science, the Fine Arts Museums, and Asian Art Museum where recent improvement projects are underway or recently completed.
- Major enhancements contemplated by the San Francisco County Transportation Authority such as Doyle Drive and the Transbay Terminal.

It should be noted that several dedicated city employees went beyond their usual duties to develop data when none was available. Where information was absent, anecdotal knowledge was often valuable in assessing the condition and life expectancy of various building systems throughout the City.

2. It became obvious that a facility management database needs to be developed and integrated with the renewal database to track those renewal projects that are funded through the plan and then implemented to keep the data current and check for performance of the system and its projection.
3. Because the Capital Plan is the basis of review for future budget appropriations it is clear that the systems developed need a seamless interface to the Annual Appropriation Process. The development of new budget system by the Controller offers and opportunity to tie capital planning and budgeting processes to the City's budget system. ...
4. Often, the enhancements needed and proposed to adopt existing facilities to provide space for new programs or changes in use leads to further research and analysis of the business needs and operations of the Department. This exercise often leads to increased scope and cost of a proposed project. The Plan advocates and proposes the funding of a significant level of planning and development of projects, to a high level of quality assurance, prior to requesting a ballot measure seeking approval of a bond. This effort would

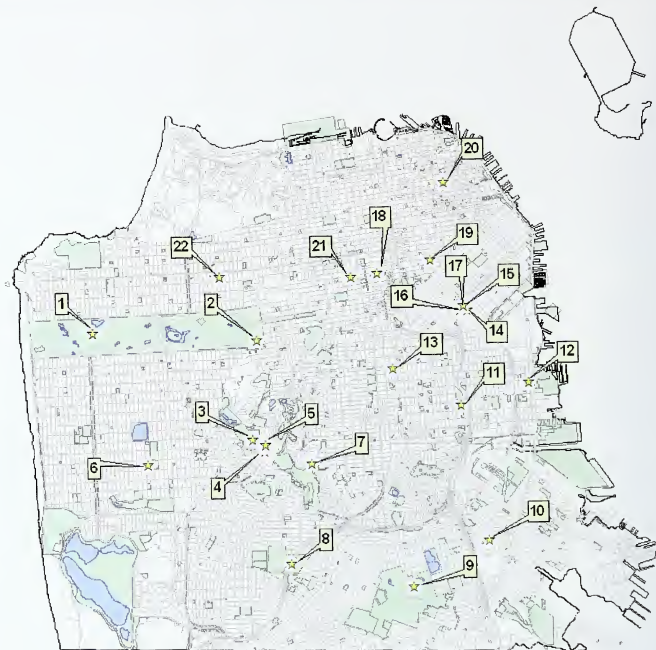
greatly benefit from consistent and continuous planning and review by departments that ties their Strategic and Operations Plans to facility needs.



## Section 2 | General Fund Department Program

- A. Crime Prevention and Criminal Justice
- B. Fire Protection & Emergency Response
- C. Public Health and Human Services
- D. Recreation and Park System
- E. Streets and Rights of Way
- F. Arts and Convention
- G. Office and Support
- H. Public Library

## A. Crime Prevention and Criminal Justice Facilities



## A. Crime Prevention and Criminal Justice Facilities

The City operates ten police district stations, five adult jails with a combined 2,100-bed capacity, 23 courtrooms in three locations, a juvenile detention facility, and a juvenile ranch facility.

Map ID	Facility
1	Golden Gate Park Police Stables
2	Park Police Station
3 - 5	Youth Guidance Center Campus
6	Taraval Police Station
7	Ingleside Police Station
8	McClaren Park Police Station
9	Bayview Police Station
10	SFGH/ Jail Ward Floor 7D/7L
11	Southeast Police Station
12	Police Academy
13	Mission Police Station
14	555-7th Street Office Building
15	Hall of Justice
16	Work Furlough Building
17	Southern Police Station
18	911 / Emergency Operations Center
19	Tenderloin Task Force Police Station
20	Central Police Station
21	Northern Police Station
22	Richmond Police Station

## A. Crime Prevention and Criminal Justice Facilities Highlights

The capital plan proposes to replace the Hall of Justice, construct a new police station in Mission Bay, relocate the police crime lab, and meet other public safety facility needs.

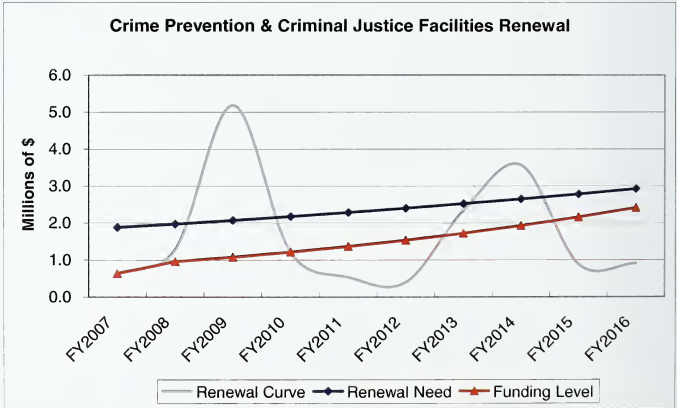
The Renewal Curve line on the graph below reflects annual variations in facility needs. The Renewal Need is the 10-year average of the Renewal Curve. The proposed Funding Level approaches need by the end of the Plan.

The City has achieved significant improvements to its criminal justice infrastructure during the past fifteen years. A new 480-bed jail facility was completed in 1984 to provide needed jail capacity. A program to upgrade and modernize the majority of the City's district police stations was completed in 1996, ensuring the seismic safety of each of the ten district stations. Replacements for the antiquated juvenile detention facility and the unsafe San Bruno jail #3 are scheduled for completion in 2006.

Significant investments, however, are still required to ensure modern and safe criminal of \$956 million in maintenance and improvements to these facilities over the coming ten justice department facilities. The proposed ten-year capital plan proposes an investment years. The vast majority of these funds (approximately \$700 million) are programmed to meet one of the City's most pressing capital needs – the maintenance and replacement of the Hall of Justice.

### 1. Renewal Program

Using the facility system renewal modeling discussed Section 1, the maintenance of the City's criminal justice facilities and infrastructure is estimated to cost \$25 million over the ten-year plan cycle, assuming continued reuse of all current facilities. Given funding constraints, the plan allocates \$15 million to meet these needs. In addition, these facilities suffer from a preexisting backlog of \$11 million of deferred maintenance needs.



These annual renewal forecasts and deferred maintenance backlogs do not include either the Hall of Justice or the Youth Guidance Center administration building, both of which are scheduled for replacement in the ten-year plan cycle. Smaller investments are proposed to meet the critical needs at each facility.

## **2. Enhancement Program (FY2007 – FY2011)**

The ten-year capital plan proposes an investment of \$941 million to fund improvements to the City's criminal justice facilities, including prioritized investments of \$770 million during the first five years of the ten-year plan cycle. The major enhancements are outlined below.

- **Replacement of the Hall of Justice.** Along with the replacement of San Francisco General Hospital, the replacement of the Hall of Justice is recommended as the City's highest priority capital need. The facility – which houses the City's police department headquarters, criminal courts, a 798 person jail, and over 1,500 city staff – is seismically unsafe, and suffers from fire and other public safety deficiencies. Constructed in the late 1950's, the building does not support efficient modern operational or technologic needs of tenant departments. Several studies conducted in the past decade conclude that the cost of renovating the facility to meet these needs exceeds its replacement cost.

The cost of the project is estimated at \$685 million given a proposed construction period beginning in FY2011. The plan proposes investments of \$16 million prior to that date to conduct schematic design to further refine the building program and the total project cost estimate. \$16 million of the \$17 million investment for the design is funded through an investment from the Capital Planning Fund.<sup>1</sup> For planning purposes, it is assumed that the State will contribute an estimated \$167 million to replace the Courts' portion of the facility. The ten-year capital plan proposes to fund the remaining \$535 million through a G.O. bond on the November 2010 ballot. Cost estimates and project schedules will be adjusted in future year capital plans.

A \$535 million Criminal Justice System Earthquake Safety G.O. bond is proposed for the November 2010 ballot. Planning will be completed prior to that time using investments from the city's Capital Planning Fund.

- **Relocation of the SFPD's Southern District Station to Mission Bay.** The development of Mission Bay – including the creation of 5,000 new housing units and over 2 million square feet of commercial uses – requires the construction of a new police district station in the neighborhood. The ten-year capital plan proposes to relocate the Southern district station, currently housed in the Hall of Justice, to a site in Mission Bay. This project is estimated to cost \$9 million, and is funded over the first two years of the ten-year plan with a mix of General Fund and developer contributions.

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<sup>1</sup> The Capital Planning Fund would have an available balance for this purpose at this time if voters approve the proposed General Hospital Rebuild G.O. bond proposed for the November 2008 ballot.

- **Relocation of the SFPD's crime lab and tactical divisions.** The SFPD's crime lab and tactical operations divisions are located in a leased facility in the Hunters Point Shipyard. This facility must be vacated to allow for the redevelopment of the area. The relocation of these functions is currently estimated to cost – at a minimum – \$20 million. Planning funds are allocated in the first year of the plan to determine the future facility needs for a new crime lab, and may result in significant increases in this estimated cost given changing operational needs. For planning purposes, this relocation is funded with a General Fund-debt issuance in FY2009, a plan that will have to be revisited in future updates of the ten-year capital plan if costs rise significantly.

The State is currently in the midst of assuming control of all local court facilities. The plan assumes that State funds will be available to fund court-related work on the Hall of Justice and Youth Guidance Center campuses. This assumption will be monitored in future plans.

### 3. **Enhancement Program (FY2012 – FY2016)**

The following capital project priorities are recommended to begin during the second half of the ten-year capital plan cycle. The largest is \$139 million beginning in 2015 to consolidate Family Court Services and replace the administration buildings at the Youth Guidance Center campus.

- Consolidation of Family Court Services at the Youth Guidance Center Campus.
- Replacement of the Youth Guidance Administrative Building.
- Expansion and Renovation of the Police Training Academy.

## **B. Deferred Projects**

The proposed ten-year capital plan defers the following improvements proposed for criminal justice facilities.

- **Relocation of the SFPD's Central District Station.** The plan defers a proposed relocation of the district station from its current location, located under a public parking facility on Vallejo Avenue. The facility, constructed in 1972, is the only district station not upgraded in the 1998 police facility improvement bond program. Given funding constraints and higher-priority projects, the plan proposes to defer the construction of a new facility but does address some of the facilities current critical inadequacies, including construction of separate locker and shower facilities for female officers.

## **C. Emerging Needs To Be Updated in Future Plans**

The need or amount of capital investment required to meet the following emerging needs are not funded in this year's plan, but will be reviewed in the subsequent year's capital plan as additional planning and uncertainty around project-specific issues are resolved.

- **Log Cabin and Hidden Valley Ranch Juvenile Facilities.** Given continued statewide conversations about the establishment of regional youth correctional facilities, possible capital investments to expand and change the programming of this facility – estimated at \$62 million – will be closely monitored in ten-year capital plans prepared in future years.

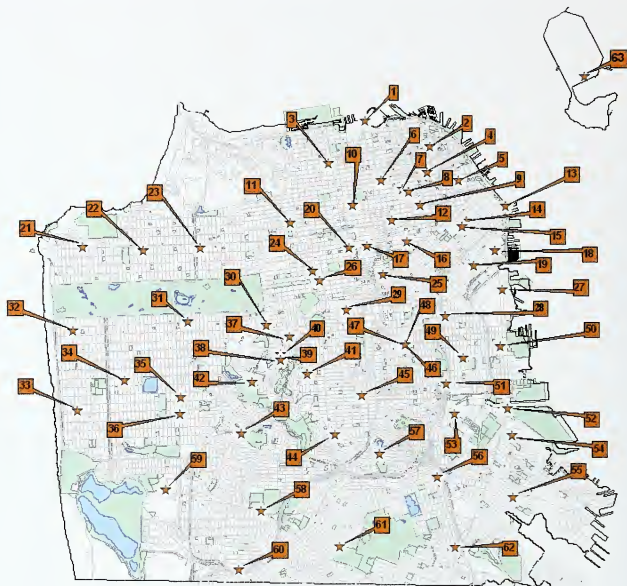
Plans to meet these emerging capital needs will be updated in future plans.

# Crime Prevention and Justice Facilities

Program/Project	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 - FY2016	PLAN TOTAL	Deferred
<b><u>COSTS</u></b>								
Current deferred maintenance backlog							0	10,809
State of good repair renewal	635	956	1,078	1,214	1,365	9,740	14,988	10,401
ADA transition plan improvements	798	2,876	2,894	0	996	242	7,806	
Police - Central Station replacement								
Police - Central Station interim improvements				2,000		0	0	31,256
Police - New Mission Bay Station	671	8,544				0	9,214	3,421
Police - Training academy expansion			2,000			13,785	13,785	
Hall of Justice interim improvement program	2,000	2,000	2,000			0	6,000	
Hall of Justice replacement project	800		5,000	10,000	678,978	0	684,778	
Youth Guidance Center - Admin Building replacement						57,296	54,296	
Youth Guidance Center - Family Court Facility						99,628	99,628	
Sheriff - Demolish old County Jail #3	200	3,308				0	3,508	
Sheriff - Indoor Gun Range	1,000	11,000				0	12,000	
Police - Crime lab relocation	750	20,000				0	20,750	
Log Cabin Ranch interim improvements	1,000	1,000				0	2,000	
Juvenile Probation - Log cabin ranch expansion						0	0	23,945
Juvenile Probation - Hidden Valley ranch reactivation						0	0	37,627
	<b>7,854</b>	<b>49,683</b>	<b>10,972</b>	<b>13,214</b>	<b>681,339</b>	<b>180,691</b>	<b>943,753</b>	<b>117,460</b>
<b><u>REVENUES</u></b>								
Federal						0	0	
State								
Local - GO Bond	641	3,214	3,352		158,826	99,628	265,661	
Local - General Fund Debt					535,151	68,082	603,233	
Local - Capital Planning Fund		27,124		10,000	(15,000)	0	27,124	
Local - Other Sources	1,000	(750)	5,000			0	(750)	
Local - General Fund	6,213	26,728	2,620	3,214	2,361	12,982	20,758	
	<b>7,854</b>	<b>49,683</b>	<b>10,972</b>	<b>13,214</b>	<b>681,339</b>	<b>180,691</b>	<b>943,753</b>	



## B. Fire Protection and Emergency Response Facilities



## B. Fire Protection and Emergency Response Facilities

The San Francisco Fire Department and the Emergency Communications Department manage 42 fire stations in the City, three fire stations at the San Francisco International Airport, a central emergency communication and dispatch center, and over 20 additional infrastructure and support facilities. Several of these structures are over 90 years old.

Map ID	Facility	Map ID	Facility
1	Salt Water Pumping Station #2 (At Fort Mason)	33	Sunset Tank & Pump Station
2	Fire Station #28	34	Fire Station #18
3	Fire Station #16	35	Fire Station # 40
4	Fire Station # 2	37	Ashbury Street Tank & Tank House
5	Fire Station # 13	38 - 39	Twin Peaks Reservoir
7	Fire Station # 41	40	Palo Alto Avenue
8	Jones Street Tank & Tank House	41	Fire Station #24
9	Fire Chief's Residence	42	Fire Station #20
10	Fire Station # 38	43	Fire Station #39
11	Fire Station #10	44	Fire Station #26
12	Fire Station #3	45	Fire Station #11
13	Fire Station #35/Fire Boat HQs	46 - 47	Fire Division of Training
14	Fire Station # 1	48	Fire Station #7- Division 3 Headquarters
17	Emergency Communications Center	49	Fire Station #37
18	Fire Headquarters/Salt Water Pump Station #1	50	Old Station 16 (Inactive)
19	Fire Station # 8	51	Bureau of Equipment Headquarters
20	Fire Station #5	52	Fire Station #2
21	Fire Station #34	53	Fire Station #9
22	Fire Station # 14	54	Arson Unit HQ and Supply Depot
23	Fire Station #31	55	Fire Station #17
24	Fire Station # 21	56	Fire Station #42
25	Fire Station # 36	57	Fire Station #32
26	Old Station 21 (Inactive)	58	Fire Station #15
27	Old Station 30 (Inactive)	59	Fire Station #7
28	Fire Station #29	60	Fire Station #33
29	Fire Station #6	61	Fire Station #43
30	Fire Station #12	62	Fire Station #44
31	Fire Station #22	63	Fire Station #48 (Treasure Island)
32	Fire Station #23	Not Shown	Airport Fire Stations 1, 2 & 3

## **A. Fire and Emergency Response Facilities Highlights**

The majority of the city's fire and emergency response facilities have been modernized and seismically braced during the past twenty years. Forty of the Fire Departments 42 stations were renovated or replaced through the 1992 Fire Facility and 1989 Earthquake Safety bond programs. The Fire Department's Arson Headquarters and Bureau of Equipment warehouse have also been renovated during this period. A new Emergency Communication Center was completed in 1999 to provide a modern facility to house the City's 911 call taking and response functions, consolidating functions from obsolete facilities at risk of damage in an earthquake.

However, several key capital investments are required to address remaining facility and infrastructure required to support fire and emergency response services. Treasure Island Fire Station (Station 48) and the Bureau of Training were not renovated under previous programs. The Fire Boat Headquarters (Station 35) is housed in a functionally deficient facility on a seismically weak pier. While improvements to the City's auxiliary water supply hydrant system (AWSS) have been completed through the 1986 Fire Facility bond program, major portions of this important hydrant system are over 70 years old and at risk of failure in a major earthquake.

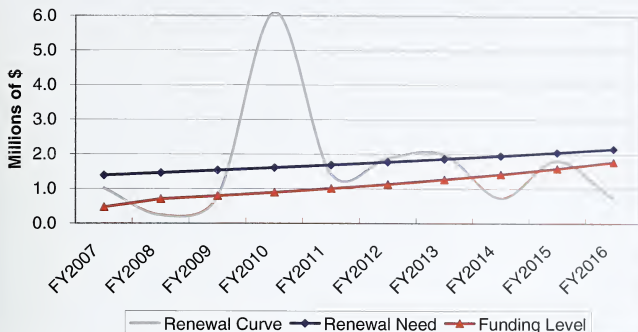
The ten-year capital plan proposes significant capital investments to meet these remaining needs, including recommended investments of \$142 million for regular facility renewal costs, repair and seismic improvements to the Auxiliary Water Supply System (AWSS), renovation of the Fire Boat Headquarters (Station 35), and a new fire station in the Mission Bay neighborhood.

### **1. Renewal Program**

Using the facility system renewal modeling discussed earlier, the maintenance of the City's fire and emergency response facilities is estimated to cost \$19 million over the ten-year plan cycle, assuming continued reuse of all current facilities. Given funding constraints, the plan allocates \$12 million to meet these needs. In addition, these facilities suffer from a preexisting backlog of \$45 million of deferred maintenance needs. These projections do not include maintenance of the AWSS system, for which \$25 million is programmed to address critical routine, ongoing maintenance needs.

Given the priority need to provide safe facilities necessary to safeguard the public's safety and health, the plan proposes significant investments in the fire protection system during the first five years of the plan.

## Fire and Emergency Services Facilities Renewal



- **Renewal or state of good repair investments.** The large majority of proposed renewal investments are for small systems across this network of facilities. Only three facilities are expected to require investments of over \$500 thousand. These include the Fire Department Headquarters/Salt Water Pump Station #1 and Salt Water Pump Station #2 at Fort Mason that were both built in 1912, and Fire Station 48 located on Treasure Island.
- **Renewal investments in AWSS system.** The plan proposes \$25 million to replace aging and corroded water pipes and connectors, repair cisterns and water tanks, and install motorized actuators on isolation valves during the plan cycle. This funding does not include investments in systems slated for replacement as part of the enhancement program.

In addition to the costs shown on the renewal chart above, fire and emergency response facilities face a preexisting backlog of \$45 million in deferred maintenance needs. This includes \$1.5 million for Old Fire Station 16, which is not in use at this time. Given funding constraints, no funds are proposed to address this deferred maintenance backlog.

- **Deferred maintenance impacts.** Despite upgrades in the past fifteen years, three fire stations (numbers 9, 10, and 20) have a backlog need over \$1 million in repairs.

The Renewal Curve line on the graph above reflects annual variations in facility needs. The Renewal Need is the 10-year average of the Renewal Curve. The proposed Funding Level approaches need by the end of the Plan.

## 2. Enhancement Program (FY2007 – FY2011)

The plan proposes an investment of \$105 million to fund improvements to the City's fire and emergency response facilities and infrastructure during the plan period, all prioritized during the first five years of the ten-year cycle. The majority of these investments are funded with a proposed 2009 fire protection system G.O. bond. The major enhancements are outlined below.

An \$89 million Fire Protection System Earthquake Safety G.O. bond is proposed for the November 2009 ballot. Funds would allow for improvements to the AWSS hydrant system and Fire Boat Headquarters

Development of the Bond is scheduled to begin in 2007. The Capital Planning Committee advised that this AWSS system upgrade should be integrated with the work planned by PUC for both water and wastewater improvements.

- **Fire Protection AWSS Upgrade.** The plan dedicates \$80 million for the upgrade and partial replacement of the City's high-pressure emergency fire protection system, the Alternate Water Supply System (AWSS) system, funded with a proposed 2009 fire protection G.O. bond. Construction would begin in FY2010. Completed in 1913 in response to the fire following the 1906 earthquake, the AWSS consists of 135 miles of high-pressure distribution lines, high pressure hydrants, suction connections, water storage tanks, underground cisterns, reservoirs, and pump stations. The system serves as an independent and redundant water supply that can be used to fight fires. Investments are needed to rehabilitate the system, seismically brace weak pipes and cisterns, and make other improvements to ensure its continued operation. The AWSS currently lacks a system wide capital assessment to inform the final scope of this project and the potential need to expand the system to other portions of the city. Accordingly, funds are allocated immediately begin this review in the first year of the plan, in preparation for the proposed bond proposal. Costs and schedules will be updated in future capital plans as they are refined.
- **Fire Boat Headquarters.** Build a new Fire Boat Headquarters on Port property with \$8.7 million in funds Fire Facility GO Bond. The existing structure is a historic building that would be too expensive to renovate for the Fire Department needs.
- **Mission Bay Fire Station.** The development of Mission Bay – including the creation of 5,000 new housing units and over 2 million square feet of commercial uses – requires the construction of a new fire station in the neighborhood. The construction of this station, estimated to cost \$11.6 million, is funded in FY2008 with a mix of developer contributions and a General Fund-supported debt issuance. This project is required under the area redevelopment agreement.
- **Expansion of the City's Emergency Operations Center.** Renovate and expand the City's Emergency Operations Center in FY2007 with \$1 million in federal homeland security funds. This project will reorganize overcrowded space to improve the facilities use as the operations center in the event of an emergency.

### 3. Enhancement Program (FY2012 – FY2016)

No major facility enhancements are proposed for the second five years of the plan cycle.

## B. Deferred Projects

The proposed ten-year capital plan defers the following improvements proposed for fire and emergency services.

- **Old Station 16 Renovations.** Given other priorities, all investments at this inactive station are deferred from the ten-year planning horizon. Work required to reopen this station is estimated to cost \$4.1 million.

## C. Emerging Needs To Be Updated in Future Plans

The need or amount of capital investment required to meet the following emerging needs are not funded in this year's plan, but will be reviewed in the subsequent year's capital plan as additional planning is completed and uncertainty around project-specific issues are resolved.

- **Hunters Point Fire Station.** Future development of the Hunters Point Shipyard may require the construction of a new fire station for the area at an estimated cost of nearly \$18 million. The current Navy-owned station lacks separate dormitory facilities for men and women and is not in compliance with ADA standards. The City will monitor both the schedule and extent of development at the shipyard to determine the need to address this potential need in coming years, as the development project progresses, and will update future plans accordingly.
- **Fire Department Training Facility Relocation.** Economic constraints and uncertain timing of the development of Treasure Island has led to no proposed funding for the modernization and relocation of the Fire Department's training facilities. This project would replace the Fire Department's current training facilities at 19th and Folsom and Treasure Island with a new combined facility that includes training classrooms, apparatus storage, a vehicular training field, drill tower, live fire simulators, a fireboat dock, and separate showers/locker facilities. This project will likely be required given future development of Treasure Island, which may fall outside of the ten-year plan cycle. The City will monitor development schedules on Treasure Island and amend future ten-year capital plans as appropriate.

Plans to meet these emerging capital needs will be updated in future plans. The need for both projects is partially driven by redevelopment projects still in their planning stages.

# Fire Protection and Emergency Response Facilities

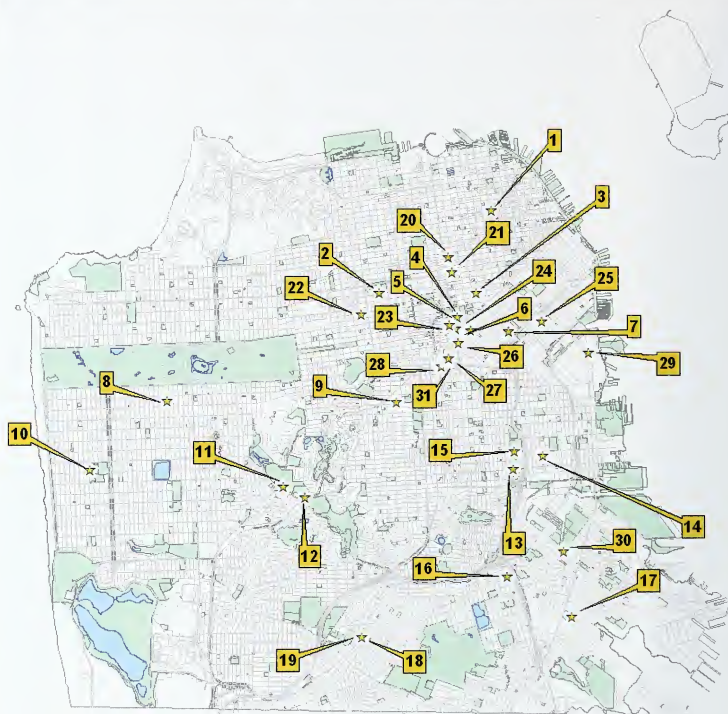
Program/Project	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 - FY2016	PLAN TOTAL	Deferred
<b><u>COSTS</u></b>								
Current deferred maintenance backlog						0	0	45,146
State of good repair renewal	706	796	897	1,008	1,059	7,193	11,659	7,682
ADA transition plan improvements		256				208	464	
AWSS system renewal	2,000	2,100	2,205	2,315	2,431	14,105	25,156	
Training facility relocation/expansion								68,414
Training facilities interim repairs				2,431		0	0	
Fire Station 1 replacement						0	2,431	
Fire Boat station renovation				8,740		0	0	18,985
New Mission Bay Station	600	10,976				0	11,576	
AWSS system seismic bracing	250	500	1,000	78,719		0	80,219	
New Hunters Point station						0	0	17,959
Station 16 renovation (inactive)	1,000					0	0	4,130
911 Center - Expanded Emergency Operations Center	4,556	14,628	4,102	93,214	3,490	21,506	141,495	162,315

## **REVENUES**

Federal	1,000					0	1,000	
State						0	0	
Local - GO Bond				88,959		0	88,959	
Local - General Fund Debt		8,496				705	9,201	
Local - Capital Planning Fund			1,000	(1,750)		0	(750)	
Local - Other Sources		2,480				0	2,480	
Local - General Fund	3,556	3,652	3,102	6,005	3,490	20,801	40,605	
	4,556	14,628	4,102	93,214	3,490	21,506	141,495	



## C. Public Health and Human Services Facilities



## C. Public Health and Human Services Facilities

The Department of Public Health (DPH) and the Human Services Agency (HSA) operate a broad range of facilities that provide direct public health and safety net services to the city's citizens. DPH manages two major medical campuses – the San Francisco General Hospital campus and the Laguna Honda campus – which together house 24 facilities. Additionally, the department operates primary care health clinics through ten city-owned facilities located citywide. HSA manages eight facilities including three homeless shelters, three children's resource centers, and two administrative buildings. Both departments provide programs at a number of leased properties as well.

As discussed in Section 1, leased facilities will be captured in future versions of the Capital Plan. As a result, several HSA facilities are not included in this year's ten-year capital plan. These include 3120 Mission Street, 1235 Mission Street, 3801 3<sup>rd</sup> Third Street, 1440 Harrison Street, and 165 Capp Street.

Map ID	Facility	Map ID	Facility
1	Health Center Four	16	Health Center Three
2	Maxine Hall Health Center	17	Southeast Ambulatory Health Center
3	N. of Market Senior Service Center	18	Alemany Emergency Hospital and Treatment Ctr
4	DPH Central Office (DOC)	19	HSA Children's and Family Health Center
5	Tom Wadell Center	20	HSA CalWorks Offices
6	1360 Mission Street	21	HSA Polk Street Homeless Center
7	San Francisco City Clinic, 555 7th Street	22	HSA 850 Broderick Street
8	Health Center Five	23	HSA Family & Children's Services Court Office
9	Health Center One	24	ETS-50 Van Ness Ave.
10	Sunset Mental Health	25	HSA 5th Street Homeless Center
11	Laguna Honda Hospital Campus	26	HSA PAES Success Center
12	598 Portola Drive	27-31	HSA 150 and 170 Otis Street
13	Community Health Network Headquarters	28	HSA FCS Foster Care
14	Caleb Clark Potrero Hill Health Center	29	HAS-Mother Theresa Dinning Hall
15	San Francisco Hospital Campus	30	HSA-CalWorks – 1800 Oakdale

Note: The map on the previous page contains some outdated information

## A. Public Health and Human Services Facilities Highlights

Substantial capital improvements to the city's public health system are currently underway. City voters approved a \$400 million capital improvement project from the Laguna Honda Hospital in 1999, which is currently entering the construction phase of the project. Additionally, the city is in the midst of a clinic modernization program to address core capital needs, modernize facilities, and improve disability access in the city's public health clinics.

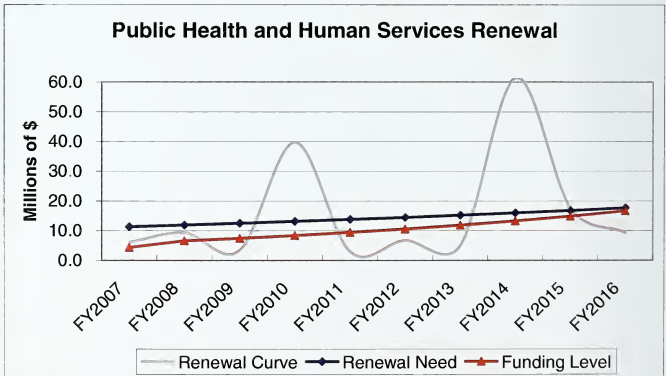
Given the size and complexity of the system, however, significant and high-priority capital needs remain. The ten-year capital plan proposes investments of \$1.0 billion to address needs in the city's network of public health and human service facilities. \$876 million – or 90 percent of these funds – are programmed to meet needs for DPH facilities. The majority of these funds (\$800 million) are programmed to meet on the City's most pressing needs – the replacement of the acute care facility at SFGH.

### 1. Renewal Program

Using the facility system renewal modeling discussed earlier in the plan, the maintenance of public health and human services facilities, assuming continued use of all facilities, is estimated to cost \$158 million over the ten-year plan cycle. Given funding constraints, the plan allocates \$103 million to these needs. These facilities are also facing an additional backlog of deferred maintenance needs of \$73 million that is not funded by the Plan.

An \$800 million replacement of the San Francisco General Hospital, among the highest priority projects facing the city, is the single largest investment in the ten-year capital plan.

The Renewal Curve line on the graph below reflects annual variations in facility needs. The Renewal Need is the 10-year average of the Renewal Curve. The proposed Funding Level approaches need by the end of the Plan.



The recent completion of a modernization program in most of the public clinics results in fairly low renewal costs for these facilities. This is not the case for several buildings at the SFGH and LHH campuses, and the Human Services Agency administrative buildings.

- **Renewal or state of good repair investments at SFGH.** Buildings with over \$5 million in backlog and renewal costs include DPH Central Offices, Building 01, Building 10, Building 100, Building 80, Building 05 or the new hospital and Path Building 03.
- **Renewal investments at Laguna Honda Hospital.** Clarendon Hall and the Main Hospital Building #1, D, E, F, and G wings are scheduled for demolition in 2009 and 2010, respectively, so investments in these buildings over the next three years will be limited to life and safety issues.
- **Renewal investments at 170 and 150 Otis.** These buildings have a combined renewal need of \$14 million. \$7.5 million or a little more than half of this need is part of the maintenance backlog that is not funded.

Facility renewal needs for public health and human services facilities are the highest of any General Funded category, given the size and complexity of these facilities. Given funding constraints, the plan funds 65% of these needs during the next ten years.

## 2. Enhancement Program (FY2007 – FY2011)

The ten-year capital plan proposes approximately \$900 million to fund improvements to Health and Human Services facilities during the first five years of the ten-year plan cycle. This represents 80 percent of the \$960 million in total enhancement funds for the entire 10-year plan cycle. The major projects covered in the first five years are highlighted below.

- **San Francisco General Hospital.** SFGH provides a full complement of inpatient, outpatient, emergency, skilled nursing, diagnostic, psychiatric, and rehabilitation services for adults and children. In addition, SFGH operates the only Trauma Center (Level 1) for 1.5 million residents of San Francisco and northern San Mateo County.

The impetus for this project is state Senate Bill 1953 that requires all California acute care hospitals to meet upgraded seismic safety standards by either retrofitting existing buildings or electing the option to rebuild a new hospital building by 2013. SB 1953 applies only to acute care (i.e., inpatient) and emergency services; it does not apply to ambulatory, psychiatric or skilled nursing services provided on a hospital campus.

Detailed planning for the SFGH replacement project will be completed with \$25 million of funding over the next two years under the proposed plan. This investment will refine the building program and cost estimates prior to submission of a financing proposal to the voters.

For over several years, DPH has been undergoing extensive planning processes to develop an institutional master plan to define facility plans for

the a new acute care hospital. An initial \$25 million investment for upfront planning purposes in FY2007 is intended to get the project through the environmental review stage prior to going to the voters with the GO Bond. This effort will form the basis for a large General Obligation bond measure (ranging in cost from \$750 - \$850 million) brought to the voters in November 2008. The initial \$25 million investment comes from the Capital Planning Fund. It would be reimbursed after the sale of GO bonds for the entire project.

- **Laguna Honda Hospital.** In November 1999 San Francisco voters approved a General Obligation Bond to replace the existing hospital building to provide a clinical and operational link between the new and old buildings. The City is also using a substantial portion of the Tobacco Settlement revenues to finance the replacement project. The total budget for the project is \$482 million.

Groundbreaking for construction occurred in November 2003. The South Residence Tower is scheduled for resident occupancy in December 2008. The Link and East Towers will be ready for occupancy in February and April 2009, respectively. The West Tower, if funded, is scheduled to open in December 2011. Resident occupancy of the Main Building will phased downward over this two to three year period as the new towers go up.

- **Primary Care Center Modernization Project.** DPH has initiated several capital improvement projects at its health clinics including seismic upgrades, architectural improvements, ADA upgrades and HVAC upgrades. The total cost of these improvements is \$16 million of which approximately \$4.9 million is currently unfunded. The ten-year plan proposes investments of \$4 million to complete the project in the next several years.

### **3. Enhancement Program (FY2012 – FY2016)**

The second five years of the plan recommends the seismic upgrade and renovation of the DPH administrative building at 101 Grove Street. The Plan invests \$78 million in FY 2015 for this project.

## **B. Deferred Capital and Emerging Needs**

No identified capital improvement proposals or emerging needs are deferred from the proposed ten-year capital plan.

## Public Health & Human Services Facilities

Program/Project	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	PLAN TOTAL	Deferred
<b><u>COSTS</u></b>								
Current deferred maintenance backlog						0	0	156,015
State of good repair renewal	4,373	6,579	7,423	8,360	9,401	10,556	103,199	55,414
ADA transition plan improvements	4,336	2,936	2,894	236	3,072	5,665	19,138	
New acute care hospital building	13,000	12,000	775,000			0	800,000	
DPH administration building seismic bracing						85,681	85,681	
Clinic modernization program	2,000	2,000				0	4,000	
	<b>23,709</b>	<b>23,515</b>	<b>785,317</b>	<b>8,596</b>	<b>12,473</b>	<b>101,902</b>	<b>1,012,019</b>	<b>211,430</b>
<b><u>REVENUES</u></b>								
Federal						0	0	
State						0	0	
Local - GO Bond			800,000			85,681	885,681	
Local - General Fund Debt						0	0	
Local - Capital Planning Fund			(25,000)			0	(25,000)	
Local - Other Sources						0	0	
Local - General Fund	23,709	23,515	10,317	8,596	12,473	16,221	151,338	
	<b>23,709</b>	<b>23,515</b>	<b>785,317</b>	<b>8,596</b>	<b>12,473</b>	<b>101,902</b>	<b>1,012,019</b>	

## D. Recreation and Park Facilities



### Legend

- Clubhouses and Activity Centers
- ⚡ Rec Centers
- ★ Community Gardens
- Community Pools
- ⚽ Golf Courses
- Parks and Open Space

## D. Recreation and Park Facilities

The Recreation and Park Department (RPD) has jurisdiction for over 230 properties with hundreds of buildings and recreation facilities throughout San Francisco and 2 other properties outside the City and County limits. Most of these properties contain one or more buildings and/or recreation facilities. All of them contain infrastructure such as paving, signage, irrigation, electrical, water and sewer systems. The Recreation and Park Department is the largest landholder of all the departments primarily supported by the General Fund.

### A. San Francisco's Recreation and Park Facilities

Following voter approval of a \$110 million bond in 2001, the City leveraged bond funds with grants, gifts and local sources to initiate 196 capital projects valued at over \$334 million. In addition to 12 new acquisitions, these included 16 clubhouse renovations, 7 community pools, 2 golf courses, 9 natural area restorations, 9 recreation centers, 3 community gardens and 83 recreation centers. To date, 66 projects are complete, while others are in design or construction.

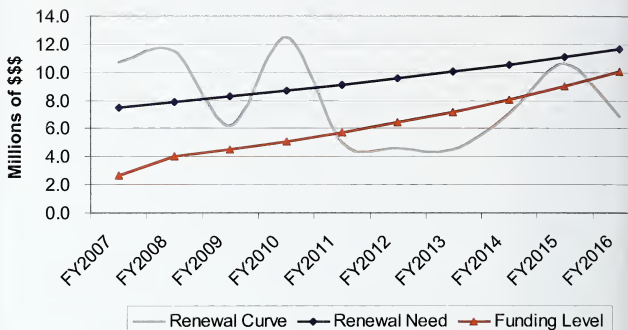
However, at least 200 facilities still suffer from deferred maintenance, structural problems, disability access, and other programmatic deficiencies. The proposed ten-year capital plan proposes an investment of \$50 million in annual renewal and maintenance at these facilities, a new \$25 million revenue and two \$150 million G.O. Bond proposals to address improvement projects over the next ten years. This will address some of the \$17 million deferred maintenance backlog. The plan defers other projects beyond the ten-year horizon of this plan.

#### 1. Renewal Program

Using the facility system renewal modeling discussed previously in the plan, the maintenance of the City's recreation and park facilities is estimated to cost \$50 million over the ten-year plan cycle, assuming continued reuse of all current facilities. In addition, these facilities suffer from a preexisting backlog of \$16.6 million of deferred maintenance needs.

The recommended capital plan funds \$50 million of the \$67 million in total renewal investments needed over the 10-year period. Given funding constraints, no funds are proposed to directly reduce the \$17 million backlog in deferred maintenance, however the proposed revenue and G.O. bonds should reduce a portion of this work with the renovation scheduled by new enhancements.

## Recreation and Park Facilities Renewal



### 2. Enhancement Program (FY2007 – FY2017)

The ten-year capital plan proposes total investments of \$400 million over the plan cycle to address a large number of system renovation and improvement needs. These proposed investments are summarized below.

- Completion of “on hold” neighborhood park and facility improvements.** Given unanticipated cost increases and increases in project scope beyond original expectations, a number of neighborhood facility and park improvements were placed on hold two years ago. The city has invested approximately \$40 million during the past two years to move a number of these projects forward. However, a shortfall of \$35 million remains to complete these existing commitments. The plan, reflecting a financing plan recently approved by the Board of Supervisors, proposes to complete these projects with the combination of a \$25 million Open Space revenue bond and \$10 million in General Funds. These investments will complete all phase I neighborhood improvement projects, including the seismic upgrade of Hamilton Pool, one of the city facilities at highest risk of damage in the event of an earthquake.
- Playfield renovation program.** The department is in the early phases of a major program to renovate city soccer, baseball, and other playing fields with more durable artificial fields. The plan proposes total investments of \$24 million during the first four years of the plan for these improvements. The

plan assumes General Fund investments of approximately \$8 million during this time period to leverage \$16 million in philanthropic gifts and grants to complete this program. The extent of the program and progress in meeting these financial planning goals will be updated in future plans.

- **System wide renovation and improvement program.** As discussed previously in this section, the city has recently identified financing to complete all "on hold" phase I neighborhood park and facility improvement projects. These projects will be completed within the next several years.

Given the size of the park system, the plan proposes to establish an ongoing program to continue these improvements to the city's park system. This approach will avoid the lost time and professional expertise that would result from periodic investments in the system followed by prolonged periods of minimal investments. To meet this goal, the capital plan proposes to begin planning in the coming year for the next phase of future renovation and improvement programs, funded with two \$150 million G.O. bonds spaced evenly through the program – the first in June 2009 and the second in November 2013.

The department has identified future neighborhood and regional park improvements that could be completed should funds become available. Additionally, a system wide assessment is underway. Lastly, several key seismic improvement projects remain uncompleted. The total cost of all required public safety improvements, deferred maintenance work, code-required improvements, and community improvement requests will exceed the \$325 million in public funds proposed for the park system in the ten-year capital plan, despite the fact that this proposed level of public investment, if accepted by policy makers and approved by the voters, would represent the largest public investment in the city's park system in a single decade in modern city history.

Accordingly, while the department has prepared long-term capital expenditure plans, they need to be updated given these proposed financial constraints to ensure that system wide safety, disability access, and improvement needs are addressed in the coming decade. It is expected that the proposed investments of city funds will leverage additional federal, state, and philanthropic sources. This year's capital plan does not assume these funds.

Future year's capital plans will update and refine the department's progress in developing capital plans that conform to this recommended financial program.

Two Park System Renovation G.O. bonds totaling \$300 million are proposed for the coming decade. The first bond, proposed for June 2009, will allow the department to continue its system improvement program without losing the expertise developed during the current phase of projects.

Even with the proposed investment of \$325 million in public funds during the coming decade (an historic high) additional prioritization of possible projects is required to ensure that system wide priorities are completed.

## **B. Deferred Capital and Emerging Needs**

As noted above, the proposed investment of \$325 million G.O. and revenue bond proceeds during the coming ten years will not address all possible facility and park improvement projects, but should allow the department to address key priorities system wide and invest in targeted programmatic enhancements. Future plans will update possible work that would require deferral given this level of investment, as the department continues to refine existing departmental capital plans given this proposed funding level.

# Recreation & Parks

Program/Project	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 - FY2016	PLAN TOTAL	Deferred
<b><u>COSTS</u></b>								
Current deferred maintenance backlog								44,423
State of good repair renewal	2,657	3,997	4,509	5,079	5,711	40,739	62,691	43,504
ADA transition plan improvements						0	0	
Neighborhood park projects (phase I)	35,000					0	35,000	
Playfield replacement program	6,000	6,000	6,000	6,000		0	24,000	
	43,657	9,997	10,509	11,079	5,711	40,739	121,691	87,927
<b><u>Systemwide Improvements</u></b>								
Neighborhood parks and facilities	705,000							
Regional parks and facilities	150,000							
	855,000	150,000				175,000	325,000	530,000
	43,657	159,997	10,509	11,079	5,711	215,739	446,691	617,927
<b><u>REVENUES</u></b>								
Federal						0	0	
State						0	0	
Local - GO Bond		150,000				150,000	150,000	
Local - General Fund Debt						0	0	
Local - Capital Planning Fund						0	0	
Local - Open Space Revenue Bonds						0	0	
Local - Open Space Cash	25,000					25,000	50,000	
Local - Childrens Baseline						0	0	
Local - Other Sources	4,000	4,000	4,000	4,000		0	0	
Local - General Fund	14,657	5,997	6,509	7,079	5,711	15,739	55,691	
	43,657	159,997	10,509	11,079	5,711	40,739	271,691	

## E. Streets and Right of Ways

## E. Streets and Right of Ways

The City's roadway network is complex. While surface transportation occurs on the roadway's surface, below it lie gas, electric, water, sewer, telephone, traffic signal, steam and other utility lines. Much of this underground infrastructure is supported by private and public sector enterprise. However the surface improvements, including roadways, sidewalks, curbs, curb ramps and landscaping are supported by the general fund.

The city maintains approximately 850 miles of streets and roadways comprised of 12,458 street segments or blocks. The streets provide mobility for motorists, cyclists, pedestrians and access to private properties. Neither public transportation nor the movement of goods and services would be possible without a system of well-maintained streets. Although durable, streets do not last forever.

As important as good roadways are to vehicular travel, sidewalks are important to pedestrian travel. In San Francisco as with other cities, the responsibility for sidewalk construction and maintenance falls on the property owner. However, sidewalks fronting City, State and Federal properties are the responsibility of the City. The City also maintains more than 30,000 street trees located throughout the City. In all, there is approximately 420,000 square feet of defective sidewalks, where sidewalk repair is needed or where sidewalks must be replaced around street trees and at publicly owned properties.

In addition to the street and sidewalk surfaces, well-maintained street structures are also important to both vehicular and pedestrian travel. Street structures are an integral part of the street network and include bridges, overpasses, and pedestrian stairs. Their surfaces and structural components must be routinely maintained to prevent premature failure.

Although San Francisco has been at the forefront in providing access to the disabled, significant work remains. The need to accommodate the mobility impaired is essential in the public path of travel. For people with disabilities, senior citizens, parents with strollers, and others, curb ramps provide the only way to safely navigate public street intersections and sidewalks. There are 6,726 functioning intersections in San Francisco with 23,581 corners. Most of these corners have only one curb ramp or none. A recent inventory indicates we need to build ramps at 13,118 corners located in every district in the City.

Finally, street lighting is provided and maintained by the Public Utilities Commission and funded through the Hetch Hetchy Power Enterprise and is included in this section of the Plan.

## A. Streets and Right of Ways

The Department of Public Works' (DPW) ten year capital plan predicts annual funding need based on optimum paving cycles ranging from 14 to 22 years, depending on the type of street, and an average paving cost of \$3.75 per square foot. Based on the use and condition of San Francisco's streets, the city should ideally appropriate \$34 million annually for street resurfacing, increasing with inflation in future years.

The backlog consists of the paving need that has been generated from deferring road maintenance in the past due to inadequate funding. DPW currently estimates 6,680 segments of City-maintained streets are in need of rehabilitation, at a cost of approximately \$378 million. If these streets are not paved within the optimal period, streets that normally only require "mill and fill" (grinding and replacement of pavement) may need to be completely reconstructed at 5 times the cost.

### 1. Renewal Program

Using an assortment of life-cycle investment tools, the annual investment needs required to maintain right-of-way assets in current condition are estimated to cost \$536 million during the next ten years. Given funding constraints, the plan allocates \$387 million to these needs, requiring the deferral of \$149 million in work until future plan periods.

These totals, summarized above, do not include preexisting backlogs of deferred maintenance of approximately \$700 million. These backlogs are not reduced in the proposed ten-year capital plan. These needs and backlogs have been established using different modeling tools than the facility renewal forecasting tool used elsewhere in this plan, as described below.

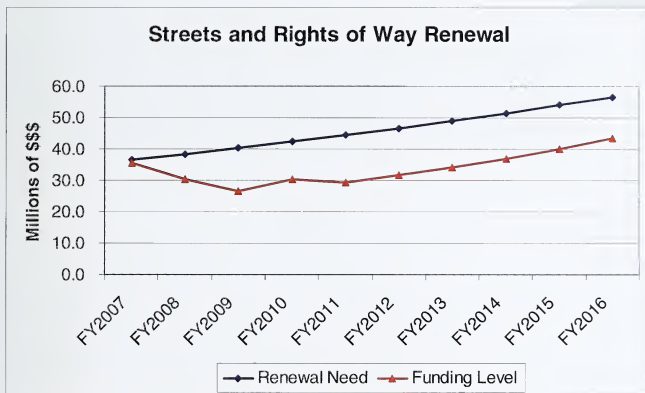
- **Street Resurfacing.** DPW has used a Pavement Management and Mapping System (PMMS) to track the condition of every block in the city since 1984. This system establishes a rating of streets that allows DPW to determine which streets are nearing the end of their useful lives. For streets with asphalt surfaces, PMMS identifies which streets should be resurfaced before damage is done to the concrete base.

The best score a street segment can get is 100 (the optimal PMMS condition score); the range requiring repaving is between 25 and 60. Pavement condition includes the ride quality, cracking, and raveling ratings of the roadway. These ratings are based on the smoothness and comfort of the ride as well as visual inspection. The data is analyzed to generate a list of streets requiring maintenance. Records from PMMS show that, due to fiscal restraints, San Francisco has been spending less on street maintenance each year than is needed to keep them in good condition, causing the

average condition scores to decrease over time from 74 in the 1988 to a new low of 55 in 2005.

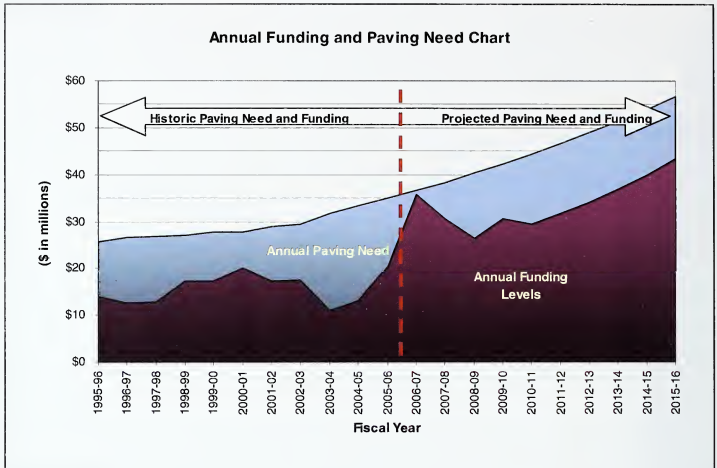
If adequate funding is available, the life of paved streets can be extended through routine maintenance. If funding is not available the life cycle of a paved street is limited, requiring replacement much earlier and at much higher costs. While new pavements generally remain in good-to-excellent condition for several years with little or no upkeep, the rate of deterioration increases rapidly after 7-10 years. At approximately 20 years, the wearing surface must be replaced at higher costs.

Proposed investments in road resurfacing during the coming ten years total \$321 million, compared with \$160 million during the past decade. Despite this increase, annual funding falls short of projected needs.



- Sidewalks.** The plan shows an annual cost for replacing defective sidewalks at \$1 million to keep current with annual deterioration – in investment, which is fully funded. In addition, there are approximately 460,000 square feet of defective sidewalk at public properties and additional work around 30,000 street trees that needs to be corrected, which is deferred maintenance. These planning estimates will be refined in future plans.
- Street Structures.** Repairs to street structures such as bridges, tunnels, retaining walls, guardrails, stairways, and rock fall barriers includes repairing concrete and metal components; rebuilding damaged construction joints; and settled stairway landings that pose a tripping hazard for pedestrians. An annual appropriation of \$3.5 million is forecast as a minimum investment in

this year's capital plan. Again, refinements to these planning estimates are required in future ten-year capital plans.



The ten-year capital plan proposes total investments of \$321 million in street resurfacing over the coming ten-year period, meeting 70% of projected annual funding needs of \$460 million. This includes, for the first time in the past decade, significant General Fund investments to meet a portion of the need between federal, state, and other local sources and a higher total annual need.

## 2. Enhancement Program (FY2007 – FY2016)

The vast majority of identified needs for this facility and infrastructure category are for renewal needs – those required to maintain existing assets in a state-of-good repair – as opposed to enhancements of those assets. The one proposed enhancements to current assets is described below.

Disability access needs are prioritized in the proposed plan for both city both city facilities and right of ways. Proposed curb ramp investments are more than double that completed in recent years.

- **Right-of-way disability access improvements.** The city must provide sidewalks, street crossing, and roadways that allow individuals to travel in the city. Significant investments are required to enhance the city's right of ways to meet this need for individuals with disabilities. This plan proposes total investments of \$72 million over the coming ten-year period for this purpose, leaving \$20 million for subsequent years. This annual investment of an

average of \$7.2 million vastly exceeds the \$2 to \$4 million annual investment completed by the city in recent years.

## **B. Deferred Capital Projects**

While the ten-year capital plan proposes to increase cash investments to meet an increasing percentage of annual renewal investment needs during the plan period, it does not provide funds to reduce preexisting backlogs of deferred maintenance. These backlogs are described below.

While proposed investments in annual street and right-of-way investments are significantly higher than that performed in recent years, these investments will not reduce existing backlogs of deferred maintenance.

- **Street Resurfacing.** DPW considers a street eligible for repaving once its PMMS condition score falls below 53. PMMS has identified approximately 6,680 street segments that are in need of renovation. This number represents the deferred maintenance backlog, which is cost to bring those streets to a PMMS score of 100, currently estimated at \$ 378,773,045. The Plan proposes to defer the backlog until new revenues or other solutions are developed to resolve this deferred maintenance problem in future plan years.
- **Sidewalk Repairs.** The current estimate required to meet the deferred maintenance backlog for the sidewalks that are the responsibility of the city to replace is estimated at \$25 million. While the plan does allocate \$14 million for the repair of sidewalks, these investments do not address this backlog.
- **Street Structures.** The majority of stairways, retaining walls, tunnels, bridges, overpasses, and other structures located in the public-right-of way were built many years ago. Most are nonconforming with respect to current codes. Bringing these stairways into compliance with building, accessibility, and other regulations will be necessary. No detailed assessments of either the annual investment need or backlogs of critical deferred maintenance have been completed in the past decade. For planning purposes, \$300 million is identified as a deferred maintenance total on the attached summary schedule. Future plans will refine data on these right-of-way structures to begin the process of developing a multi-year financial plan to meet these needs.

## Streets and Right-of-Ways

Program/Project	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 - FY2016	Total	Deferred
<b><u>COSTS</u></b>								
Current deferred maintenance backlog								
Roads								
Sidewalks								380,000
Street structures								25,000
Street resurfacing	28,463	20,563	26,458	30,506	29,417	186,288	321,715	300,000
Sidewalk repair	1,080	1,134	1,191	1,250	1,313	7,616	13,584	137,944
Curb ramps	6,173	5,126	6,089	6,790	6,749	41,429	72,356	20,092
Street structures	2,447	1,603	1,947	2,124	1,845	16,003	25,969	11,995
Street lighting	2,000	2,100	2,205	2,315	2,431	14,105	25,156	
	<b>40,163</b>	<b>30,547</b>	<b>37,990</b>	<b>42,985</b>	<b>41,754</b>	<b>265,441</b>	<b>458,780</b>	<b>875,031</b>
<b><u>REVENUES</u></b>								
Federal	2,673	3,055	3,055	2,000	2,000	10,000	22,783	
State	5,466	5,466	10,683	14,469	10,683	53,415	100,182	
Local - GO Bond						0	0	
Local - General Fund Debt						0	0	
Local - Capital Planning Fund						0	0	
Local - Other	16,024	6,096	6,325	6,571	6,764	38,054	79,835	
Local - General Fund	16,000	15,929	17,827	19,946	22,307	163,971	255,980	
	<b>40,163</b>	<b>30,546</b>	<b>37,890</b>	<b>42,986</b>	<b>41,755</b>	<b>265,441</b>	<b>458,780</b>	

## F. Arts and Convention Facilities



## F. Arts and Convention Facilities

The City operates three convention facilities, four major civic center arts facilities and auditoriums, four neighborhood arts cultural facilities, and a vacant arts gallery.

Map ID	Facility
1	Palace of Legion of Honor
2	Academy of Sciences Museum
3	M.H. De Young Memorial Museum
4	Moscone Centers (North, South, and West)
5	Asian Arts Museum
6	Brooks Hall
7	Bill Graham Civic Auditorium
8	Davies Symphony Hall/ Zellerbach Hall
9	War Memorial Veteran's Bldg
10	War Memorial Opera House
11	Arts Commission Gallery
12	Western Addition Cultural Center
13	South of Market Cultural Center
14	Mission Cultural Center
15	Bayview Opera House

## A. Arts and Convention Facilities Highlights

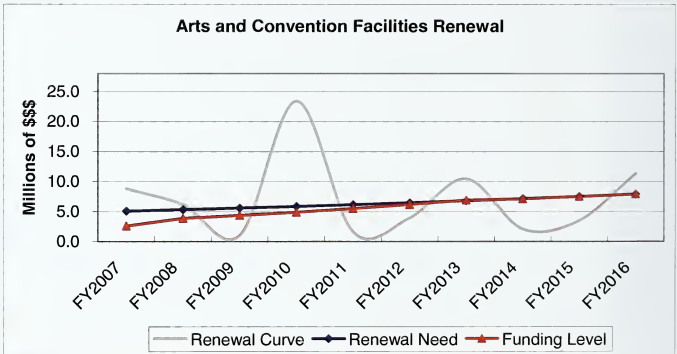
The City has achieved several important improvements to its arts and convention facilities during the past fifteen years. A new convention facility was completed in 2003 to provide needed exhibition space. The seismic retrofit and renovation of the Civic Center opera house and Bill Graham civic auditorium were completed in the early 1990s using voter-approved earthquake safety bond funds. All three major city-funded museums have either completed or are in the midst of constructing new facilities.

Several remaining facilities, however, suffer from seismic, disability access, and other deficiencies. The proposed ten-year capital plan proposes an investment of \$205 million in maintenance and improvements to these facilities over the coming ten years. Investments to meet seismic and modernization needs of a single facility – the Veterans Building – account for \$132 million, or nearly two-thirds of total investments in this category.

The Renewal Curve line on the graph below reflects annual variations in facility needs. The Renewal Need is the 10-year average of the Renewal Curve. The proposed Funding Level matches the need in FY2013.

### 1. Renewal Program

Using the facility system renewal modeling discussed in Section 1, the maintenance of the City's arts and convention facilities is estimated to cost \$101 million over the ten-year plan cycle, assuming continued reuse of all current facilities.



Given funding constraints, no funds are proposed to reduce the \$62 million backlog in deferred maintenance. The majority of this backlog is for deferred maintenance attributable to the Veterans Building, which is slated for a major renovation during the plan cycle.

## **2. Enhancement Program (FY2007 – FY2011)**

The ten-year capital plan proposes an investment of \$153 million to fund improvements to the City's arts and convention facilities. The major enhancements are outlined below.

- **Seismic Bracing of the Veterans Building Theater.** The Veterans Building houses the Herbst Theater, meeting space for local veterans, and space currently used as temporary City office space. The facility suffers from a number of seismic deficiencies, the most serious of which is the strength of the facility's theater. The theater has a capacity of 2,000 people. Although the theater could be renovated early in the plan as a first phase, the War Memorial Board and Capital Planning Committee agree it should be done in one phase as soon as practical. The cost of the project is estimated at \$114 million given a proposed construction period beginning in FY2012. The plan proposes two annual investments of \$2.5 million to begin the project in the year 2010 and the issuance of \$114 million in hotel tax (General Fund) debt in FY2012.
- **Reprogramming of the Bill Graham Civic Auditorium.** The City is currently seeking proposals from private companies to operate the civic auditorium. It is anticipated that vendors bidding on the project are likely to make capital investments in the facility to support new programming needs. The nature and extent of these renovations will be refined in future capital plans once a vendor has been selected; for planning purposes, this year's plan assumes a private investment of \$5 million in the facility.

## **3. Enhancement Program (FY2012 – FY2016)**

The following capital project priority is recommended to begin during the second half of the ten-year capital plan cycle. This proposal – the remaining design and construction/renovation of the veterans building – is scheduled to begin in 2012 and is financed through the use of \$109 million of hotel tax (General Fund) debt.

- Renovation of the Veterans Building

## **B. Deferred Projects**

The proposed ten-year capital plan defers the following project needs.

- **Renovation of the Arts Commission Gallery Building.** This seismically unsafe facility has been inactive since 1989. Given more pressing capital needs at currently active facilities, the plan does not propose capital investments to reopen the gallery.

## C. Emerging Needs To Be Updated in Future Plans

Plans to meet these emerging capital needs will be updated in future plans. Future plans will report on the cost of replacing versus renovating these facilities, the possible relocation of these programs to other sites, and other funding options available to fund these needs.

The need or amount of capital investment required the following emerging needs are not funded in this year's plan, but will be reviewed in the subsequent year's capital plan as additional planning is completed and uncertainty around project-specific issues are resolved.

- **Renovations of the City's Cultural Centers.** Investments required to meet serious building deficiencies, seismic stability, and ADA access needs in three of the City's cultural facilities are deferred from the plan. The severity of these facility needs, the cost required to renovate the existing sites, and the possibility of relocation to other leased or owned sites requires the need for additional review and analysis. Future plans will report on this review.

# Arts and Convention Facilities

Program/Project	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 - FY2016	PLAN TOTAL	Deferred
<b><u>COSTS</u></b>								
Current deferred maintenance backlog								20,524
State of good repair renewal	2,553	3,840	4,333	4,880	5,487	39,144	60,237	41,801
ADA transition plan improvements	233	136	243	1,328	674	4,416	7,030	
Veterans Building - Pre-Debt Planning/Design				2,500	2,500	0	5,000	
Veterans Building - Full building renovation						109,348	109,348	
Bayview Opera House upgrade						0	0	6,841
African American Art and Cultural Center upgrade						0	0	21,608
Mission Cultural Center upgrade						0	0	28,908
South of Market Cultural Center upgrade						0	0	18,198
Bill Graham Civic Auditorium reuse	5,000					0	5,000	
Arts Commission Gallery upgrade	7,785	3,976	4,576	8,708	8,661	152,908	186,615	3,421
								141,302

## **REVENUES**

Federal						0	0	0
State						0	0	0
Local - GO Bond						0	0	0
Local - General Fund Debt						109,348	109,348	
Local - Capital Planning Fund				2,500	2,500	0	5,000	
Local - Other Sources	5,000		0			14,000	19,000	
Local - General Fund	2,785	3,976	4,576	6,208	6,161	29,559	53,266	
	7,785	3,976	4,576	8,708	8,661	152,908	186,615	

## G. Office and Other Support Facilities



## G. Office and Support Facilities

The City owns over one million square feet of office facilities, primarily in the Civic Center, and operates several industrial/corporate yards to support the operations of multiple departments, that are not discussed elsewhere in this capital plan.

Map ID	Facility
1	Convention & Visitors Bureau/ Hallidie Plaza
3	Power House
4	Superior Courts Building
5	City Hall
6	240 Van Ness (inactive)
7	25 Van Ness Office Building
8	30 Van Ness Office Building
9	1660 Mission Street Office Building
10	1680 Mission Street
11	Animal Control Facility
12	DTIS Central Radio Station- Twin Peaks
13	DPW Corporation Yard
14	Produce Market- Central
15	Central Shops (Jerrold Avenue & Toland Street)
16	DTIS Admin & Shops

The city is currently exploring the purchase of over 500 thousand square feet of office space. Needs for these facilities will be included in future plans.

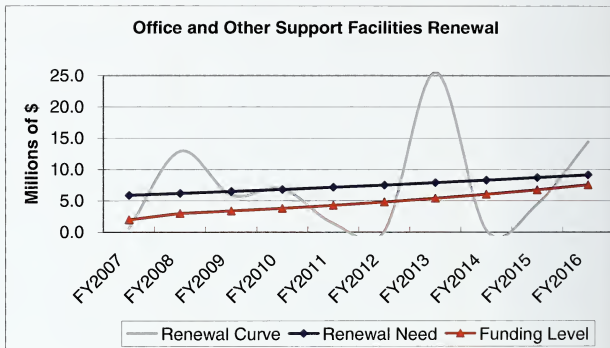
The Renewal Curve line on the graph below reflects annual variations in facility needs. The Renewal Need is the 10-year average of the Renewal Curve. The proposed Funding Level approaches need by the end of the Plan.

## A. Office and Other Support Facilities Highlights

The City has acquired several new facilities during the past fifteen years as part of an effort to relocate city offices from leased space into city-owned space – a trend that will likely add new facilities that will be discussed in future plan updates. This has expanded the portfolio of facilities requiring maintenance and routine capital investments.

### 1. Renewal Program

Using the facility system renewal modeling discussed earlier in the plan, the maintenance of the City's office and other support facilities is estimated to cost \$70 million over the ten-year plan cycle, assuming continued reuse of all current facilities. Given funding constraints, \$47 million is proposed to meet these needs. Given funding constraints, no funds are proposed to reduce the \$27 million backlog in deferred maintenance.



### 2. Enhancement Program (FY2007 – FY2011)

Given other proposed citywide priorities, no facility enhancements are proposed for these facilities during the first five years of the capital plan.

### 3. Enhancement Program (FY2012 – FY2016)

The following capital project priorities are recommended to begin during the second half of the ten-year capital plan cycle. All of these investments address moderate seismic and facility modernization needs.

- **Renovation and Seismic Bracing of Central Shops**
- **Renovation of DPW Corporate Yard**
- **Renovations of the Telecom and Information Services industrial yard**

Moderate seismic improvement needs at the city's corporate yards are funded with a Facility Earthquake Safety G.O. bond proposed for the November 2015 ballot.

## B. Deferred Projects

In addition to the \$21 million backlog identified in the renewal backlog section above, the proposed ten-year capital plan defers another \$26 million in enhancements. These include the following.

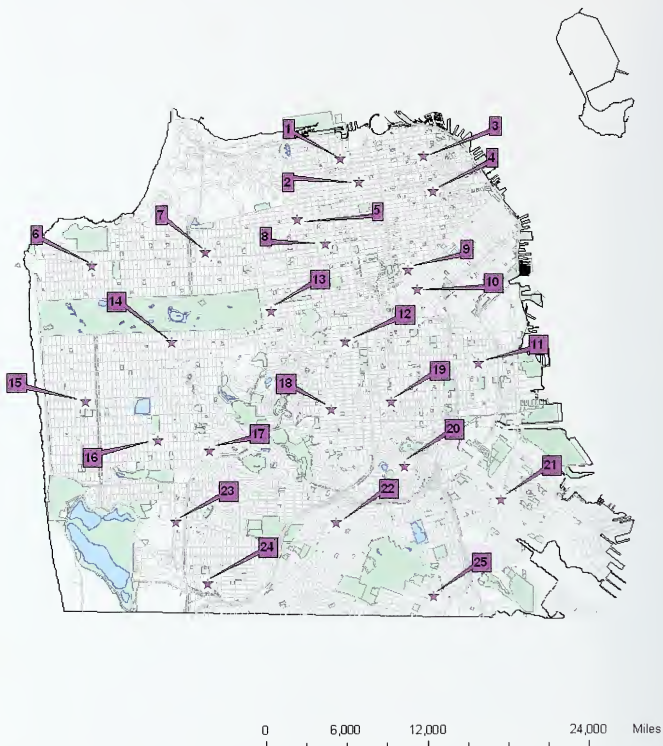
- **Seismic Improvement of 240 Van Ness.** This seismically unsafe facility has been inactive since 1989. Given more pressing capital needs at currently active facilities, the plan does not propose the \$21 million in capital investments needed to reopen the building.
- **Civic Center Powerhouse and Steam Loop.** The system used to cool serving the older buildings in the Civic Center is in poor condition. Replacement costs are estimated at \$5 million. Given funding constraints and higher priorities, this investment is deferred from the ten year plan horizon.

# Office and Other Support Facilities

Program/Project	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 - FY2016	PLAN TOTAL	Deferred
<b>COSTS</b>								
Current deferred maintenance backlog								27,365
State of good repair renewal	1,988	2,990	3,374	3,800	4,273	30,479	46,903	23,345
ADA transition plan improvements	17	77	0	471	981	278	1,825	
240 Van Ness Avenue seismic bracing						0	0	20,524
Industrial yard improvements and seismic bracing	2,004	3,068	3,374	4,270	5,254	25,050	25,050	
						55,807	73,777	71,234
<b>REVENUES</b>								
Federal						0	0	
State						0	0	
Local - GO Bond						25,050	25,050	
Local - General Fund Debt						0	0	
Local - Capital Planning Fund						0	0	
Local - Other Sources	2,004	3,068	3,374	4,270	5,254	30,757	48,727	
Local - General Fund	2,004	3,068	3,374	4,270	5,254	55,807	73,777	



## H. Francisco Public Library Facilities



## H. Public Library Facilities

The San Francisco Public Library (SFPL) provides access to information, independent learning services, and the city's extensive collection of books and materials. The Library also provides children's reading programs, adult literacy programs, bookmobiles, and the Youth Guidance Center Collaborative. SFPL currently operates the Main Library, a library operations support services center, and 26 branch libraries, with an additional new branch in Mission Bay Branch scheduled to open in late spring, 2006.

Map ID	Facility
1	Main Library
2	Support Services Center
3	Anza Branch Library
4	Bayview Branch Library
5	Bernal Heights Branch Library
6	Chinatown Branch Library
7	Eureka Valley Branch Library
8	Excelsior Branch Library
9	Golden Gate Valley Branch Library
10	Marina Branch Library
11	Merced Branch Library
12	Mission Branch Library
13	Noe Valley Branch Library
14	North Beach Branch Library
15	Ocean View Branch Library
16	Ortega Branch Library
17	Park Branch Library
18	Parkside Branch Library
19	Potrero Branch Library
20	Presidio Branch Library
21	Richmond Branch Library
22	Sunset Branch Library
23	West Portal Branch Library
24	Western Addition Branch Library
25	Glen Park Branch Library
26	Ingleside Branch Library
27	Mission Bay Branch Library
28	Portola Branch Library
29	Visitation Valley Branch Library

## A. Public Library Facilities

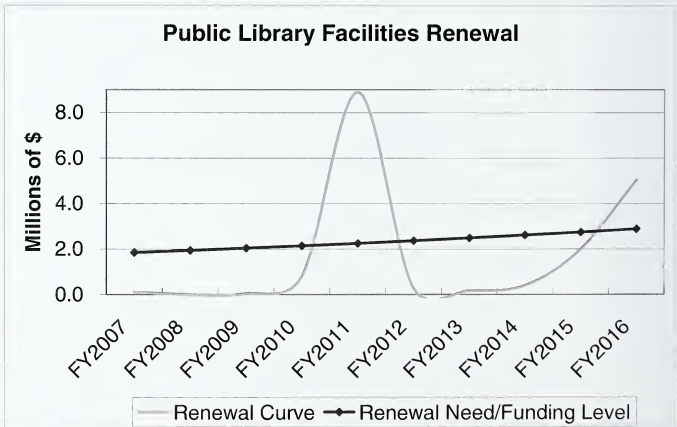
The Branch Library Improvement Program, approved by the voters in 2001, will complete a major renovation of the entire library system. Any effects of construction cost increases will be reported in future plans.

Following voter approval of a \$105 million bond in 2001, the City leveraged approved bond funds with grants, gifts and local funds to finance the current \$135 million Branch Library Improvement Program (BLIP). The BLIP will provide for some deferred maintenance, access improvements, structural upgrades and programmatic improvements to 24 Branch libraries and the Support Services center. As a result of the BLIP program, the new Support Services center was purchased and the renovation of Excelsior Branch Library complete. The remaining branches are in design or construction. The Mission and Chinatown Branch Libraries were improved through the recent Earthquake Safety Bond Program, and Oceanview Branch Library was recently built. With the completion of the BLIP program in 2010, all the library facilities will be renewed for service well into the future. The department is currently reviewing the program to address unanticipated escalation and its effect on the overall program. Any proposed deferrals of projects would be reported in future plan updates.

The Renewal Curve line on the graph below reflects annual variations in facility needs. The Renewal Need / Funding Level line matches the 10-year average of the Renewal Curve.

The new Main Library was completed in 1996. After completion of the Main Library a Post Occupancy Evaluation (POE) was conducted to determine how public service could be improved in the facility. Among the recommendations was relocation of the Technical Services Department from the first floor of the Main where it was housed. The POE recommended that the first floor space be utilized as public space and the Library. After moving Technical Services to the new Support Services Center the Library is now moving parts of the collection from other floors to the first floor.

### 1. Renewal Program



Using the facility system renewal modeling discussed earlier in the plan, the annual renewal and maintenance investment for the City's library facilities is \$18 million over the ten year plan cycle, assuming continued reuse of all current facilities. Most of this need is for the new Main Library. The plan fully funds renewals henceforth but does not include funds for an additional \$5 million in maintenance backlog needs from previous years.

The \$18 million in renewal expenditures funds 62% of the \$23 million in Library facility renewal needs. The BLIP will address a large part, but not all of the \$5 million in deferred maintenance needs. The deferred maintenance backlog will be updated in future year's capital plan update.

## **2. Enhancement Program (FY2007 – FY2011)**

- The ten year capital plan identifies the approved but not yet sold or appropriated bond and/or other sources investment of \$98 million in BLIP improvements to the City's libraries.

## **3. Enhancement Program (FY2012 – FY2016)**

There are no major enhancements planned for the Library's facilities in the remainder of the ten-year plan.

# **B. Deferred Capital and Emerging Needs**

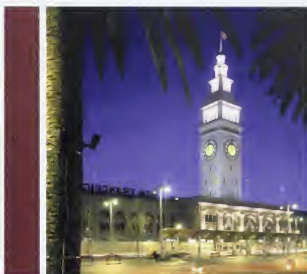
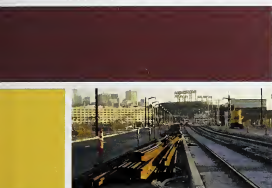
No proposed projects are deferred from the proposed ten year capital plan.

## **C. Emerging Needs To Be Updated in Future Plans**

There are no major enhancements planned for the Library's facilities in the remainder of the ten-year plan. The department is currently evaluating the impact of construction cost increases on the overall enhancement program, which may require the deferral of some proposed projects to enable the department to complete work within available funds. The outcome of this review will be reported in next year's capital plan update.

# Public Library Facilities

Program/Project	BLIP Prior Yrs.	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 - FY2016	PLAN TOTAL	Deferred
<b><u>COSTS</u></b>									
Current deferred maintenance backlog									5,131
State of good repair renewal		106	0	38	803	9,074	8,471	18,493	
ADA transition plan improvements							0	0	
Main Library									
Branch Library Improvement Program (BLIP)									
Support Services Facility	11,047						0	0	
Acquisitions and New Construction	31,244								
Branch Library Renovations	55,919	2,000	37,309					38,309	
	<b>98,209</b>	<b>2,106</b>	<b>37,309</b>	<b>38</b>	<b>803</b>	<b>9,074</b>	<b>8,471</b>	<b>57,802</b>	<b>0</b>
<b><u>REVENUES</u></b>									
Federal							0	0	
State	3,467		6,244				0	6,244	
Local - Previously-approved GO Bonds	74,800		31,065				0	31,065	
Local - GO Bond							0	0	
Local - General Fund Debt							0	0	
Local - Other Sources	19,942	2,106		38	803	9,074	8,471	20,483	
Local - General Fund	<b>98,209</b>	<b>2,106</b>	<b>37,309</b>	<b>38</b>	<b>803</b>	<b>9,074</b>	<b>8,471</b>	<b>57,802</b>	



## Section 3 | Enterprise Department Program

- A. Airport
- B. Municipal Transportation Agency
- C. Port of San Francisco
- D. Public Utilities Commission

## A. San Francisco Airport Facilities



## A. San Francisco Airport Facilities

The Airport manages passenger terminals, cargo buildings and maintenance facilities as well as runways, roadways, an AirTrain, and utilities infrastructure.

### A. Airport Facilities Highlights

The Airport annually produces a 5-Year Capital Improvement Plan for review by its Commission. The Airport's current 5-Year Capital Plan is incorporated into this 10-year Capital Plan, specifically as capital projects projected for the first 5 years, these represent the highest priority capital projects that the Airport expects to undertake. The second 5-year period of the 10-year Capital Plan, anticipates lower-priority capital projects that can be deferred until later in the Plan..

In summary, the attached 10-Year Plan includes the projected Airport requirements for:

- Facilities operation and maintenance budget to cover routine facilities maintenance projects.
- Renewal budget to cover the cost of non-routine maintenance and repair projects.
- Deferred maintenance, related to facilities maintenance projects not included under the maintenance or renewal budgets (potentially being deferred until some future time in order to accommodate higher-priority projects within the available resources).
- Capital improvement projects for each one of the Airport's cost centers (Airfield, Terminals, Support Areas, Utilities, and Groundside).

The plan also indicates the projected funding sources for the referenced facilities maintenance and capital needs. These sources include:

- **The \$283,627,698 unexpended balance of existing capital funds which were appropriated in support of the Airport's Capital Improvement Plan for FY2005/2006.**
- **The capital funds related to the \$16,432,714 Supplemental Appropriation request to the FY2005/2006 Capital Plan** (recently approved by the Board of Supervisors). Of this amount, \$15,707,484 represents reprogramming of existing funds and only \$635,230 corresponds to new capital funds.
- **Additional \$46,528,071 capital funds related to the Capital Improvement Plan for FY2006/2007 being developed by the Airport.** Out of this total, \$12,644,247 represents reprogramming of existing funds and \$33,883,824 represents new capital funds.

- **Other funding sources.** The Plan also includes projections of other funding sources, such as interest earnings on existing bond proceeds, operating funds to cover capital improvements, future grant funds, and a portion of Passenger Facility Charges to be used for capital improvements.

Although at some point in the next 1-2 years the Airport expects to start issuing new capital revenue bonds for this purpose, currently the amount and timing of any new debt have not been determined. Hence, the attached plan does not consider this as a funding source yet; this plan can be revised when the Airport determines the projected amounts and timing of additional bond issues.

## **1. Renewal Program**

A major requirement for renewal and repair for the Airport is the Airfield, specifically the runways and taxiways. The Airport uses a pavement management system to assess the condition of the runways and taxiways to prioritize renewal and repair efforts. The Airport Capital Improvement Plan (ACIP) applies to the Federal Aviation Administration (FAA) to request grant funds under the Airport Improvement Program (AIP). Historically, the Airport has received approximately \$25 Million annually through the AIP. The \$25 Million represents the federal 75% matching share to the 25% that is committed through Airport capital funds. Pavement renewal is capitalized while pavement repairs are completed through the Operating Budget and Facilities Maintenance funds, since repairs are not eligible for AIP. The Airport intends to commit approximately \$30 Million annually to fund runway and taxiway renewals and repairs, provided there are AIP matching grant funds.

Assessments for Airport Terminals and other significant buildings are done in concert with capacity planning and projected air traffic loads since renewal efforts alone cannot meet the changing demographics and competitive demands of the industry. Current business levels, as well as the evolving growth of flight operations and passengers, will eventually prompt requirements for major capital improvements that will be undertaken to replace many buildings that are more than 50 years old. The many modern facilities, structures, and roadways that were completed under the Master Plan provide the Airport with the ability to accommodate foreseeable growth in a dynamically changing environment. Therefore, the efforts of the Airport to address the needs for the older buildings over the next few years will focus on repairing roofs, replacing carpets, repairing cracks, painting, etc. The Airport is prepared to commit approximately \$25 Million annually for building maintenance. The Airport does not expect to initiate a large-scale building replacement program within the next 5 to 10 year planning horizon. The upper level viaduct and the seismic retrofitting of Terminal 3 facilities represent the major modifications contemplated by the Airport over the coming 10-year planning horizon.

The Airport performs an ongoing assessment of the utilities infrastructure to determine renewal and replacement/repair requirements. This process of utilities infrastructure life cycle analysis has resulted in a renewal and replacement/repair program of approximately \$10 Million per year.

The Airport recognizes that there are deferred maintenance, renewal, and replacement challenges that can only be addressed under a vastly improved business environment. Such deferred projects are generally considered of a lower priority level, and are only postponed in order to accommodate higher-priority maintenance projects with the available resources.

## **2. Enhancement Program (FY2007 – FY2011)**

The Airport is planning to fund capital improvement projects totaling approximately \$284 Million during the first five years (FY2006-2007 through FY2010-2011) of the ten-year capital plan. The major projects are:

- Industrial Waste Treatment Plant – to increase efficiency, processing, and capacity
- Terminal Upper Level Viaduct, Phase I – to begin reinforcing the main transit route connecting all terminal facilities
- Terminal 1 Boarding Area “B” Repair – to repair and reinforce building structure
- Passenger Loading Bridges and Apron Modifications – to accommodate new large aircraft operations such as the Airbus A380
- Terminal 1 AirTrain Bridges and Mezzanine – to improve connectivity between Terminal 1 and the AirTrain
- West Field Cargo Redevelopment I – to improve cargo operations and capacity
- Power Distribution System Loop Connection, Phase I – to improve power distribution
- Phased Reconstruction and Overlay Taxiways – to renew and maintain airfield pavements
- Boarding Area “A” Activation of Remaining 3 Gates – to maximize gate operations at International Boarding Area “A”

## **3. Enhancement Program (FY2012 – FY2016)**

The Airport is planning to undertake the following major capital projects during the second five years (FY2011-2012 through FY2014-2016) of the ten-year capital plan.

- Terminal 3 Seismic Upgrade
- Terminal Upper Level Viaduct, Phase II
- Airport Bridges, Phases I and II

- Terminal Fire Protection System
- Power Distribution System (PDS) Duct Bank Replacement
- Cable Replacement
- Load Center Transformer Upgrade

## **B. Deferred Capital and Emerging Needs**

The proposed 10-Year Capital Plan defers the following improvements proposed for Airport facilities. The fact that these projects are of a low-priority level is the main reason why these projects are unfunded and being deferred at this time.

- West Underpass Seismic Retrofit – a \$5 million project that will be reconsidered after FY2016.
- New FAA Control Tower (replacement) – a \$35 million project to be reconsidered no sooner than FY2013 and perhaps after FY2016.
- Multi-modal Transportation Center (Phase II) – a \$90 million project that will be deferred and reconsidered after FY2016.
- AirTrain Extension to Lot DD Garage – a \$94 million project that will be deferred indefinitely at this time.
- Terminal 1 (Boarding Area "B") Reconstruction and Improvement – a \$300 million project that may be undertaken after FY2016

## **C. Airport Facilities Capital Program Funding Summary**

Please see the attached summary spreadsheet on the next page.

**NOTE: THE TABLE BELOW DOES NOT INCLUDE THE ROUTINE MAINTENANCE COSTS**

## Airport Facilities and Infrastructure

Program/Project	FY2006 Cost Estimate	FY2007	FY2008	FY2009	FY2010	FY2012 - FY2016	PLAN TOTAL
<b>Costs</b>							
Renewal	2,800,000	3,500,000	3,605,000	3,713,150	3,824,545	20,600,602	38,043,297
Deferred Maintenance	4,472,500	3,351,500	3,046,500	3,086,850	2,175,455	5,631,905	21,764,710
	<b>7,272,500</b>	<b>6,851,500</b>	<b>6,651,500</b>	<b>6,800,000</b>	<b>6,000,000</b>	<b>26,232,507</b>	<b>59,808,007</b>
Capital Requirements by Cost Center							
Airfield	55,267,667	37,591,000	18,181,700	24,900,000	31,350,000	184,746,250	352,036,617
Terminals	48,553,822	63,418,136	79,990,000	63,566,000	69,815,000	43,743,750	367,086,708
Airport Support Area	34,372,000	25,888,000	6,680,000	6,550,000	3,400,000	33,562,500	110,452,500
Utilities	14,848,625	17,610,000	20,340,000	24,555,000	24,200,000	141,330,425	314,330,425
Groundside	11,458,000	10,949,800	17,610,000	12,500,000	9,400,000	39,959,050	104,906,850
	<b>162,500,114</b>	<b>155,389,736</b>	<b>142,801,700</b>	<b>132,071,000</b>	<b>138,165,000</b>	<b>344,886,350</b>	<b>1,075,813,100</b>
<b>Total Operating/Capital</b>	<b>169,772,614</b>	<b>162,240,236</b>	<b>149,453,200</b>	<b>138,871,000</b>	<b>144,165,000</b>	<b>371,119,057</b>	<b>1,135,621,107</b>
<b>Revenues</b>							
Funded Airport Capital Plan Appropriations:							
FY04/05 Five-Year Capital Plan <sup>1</sup>	113,451,080	85,088,309	85,088,309	-	-	-	283,627,698
Amendments to FY04/05 Capital Plan <sup>2</sup>	254,092	190,569	127,046	63,523	-	-	635,230
FY06/07 Five-Year Capital Plan <sup>3</sup>	12,644,247	8,486,048	6,376,765	3,188,382	3,188,382	-	33,863,824
	<b>126,349,419</b>	<b>93,764,926</b>	<b>91,592,120</b>	<b>3,251,905</b>	<b>3,188,382</b>	<b>-</b>	<b>318,146,752</b>
Other Capital Funding Sources <sup>4</sup>							
Operating Budget	-	6,225,000	5,819,000	4,000,000	4,000,000	20,000,000	40,044,000
Existing Bond Proceeds/Interest Income	-	1,200,000	600,000	300,000	150,000	29,063	2,279,063
Oper. Fund Appropriation for Capital Proj.	-	3,914,000	4,031,420	4,152,363	4,276,933	23,388,025	39,762,741
Grant Funds	-	25,000,000	25,000,000	25,000,000	25,000,000	125,000,000	225,000,000
Passenger Facility Charges (capital uses)	-	6,500,000	7,000,000	7,000,000	8,000,000	47,500,000	76,500,000
	<b>-</b>	<b>42,839,000</b>	<b>42,450,420</b>	<b>40,952,363</b>	<b>41,426,933</b>	<b>215,917,088</b>	<b>383,586,804</b>
<b>Total Revenues (Fund Sources)</b>	<b>126,349,419</b>	<b>136,603,926</b>	<b>134,042,540</b>	<b>44,204,268</b>	<b>44,615,315</b>	<b>215,917,088</b>	<b>701,732,556</b>
<b>Unfunded Capital (Shortfall)</b>	<b>(43,423,195)</b>	<b>(25,636,310)</b>	<b>(15,410,660)</b>	<b>(94,666,732)</b>	<b>(99,549,685)</b>	<b>(155,201,969)</b>	<b>(433,888,551)</b>
Deferred expenditures and/or debt							

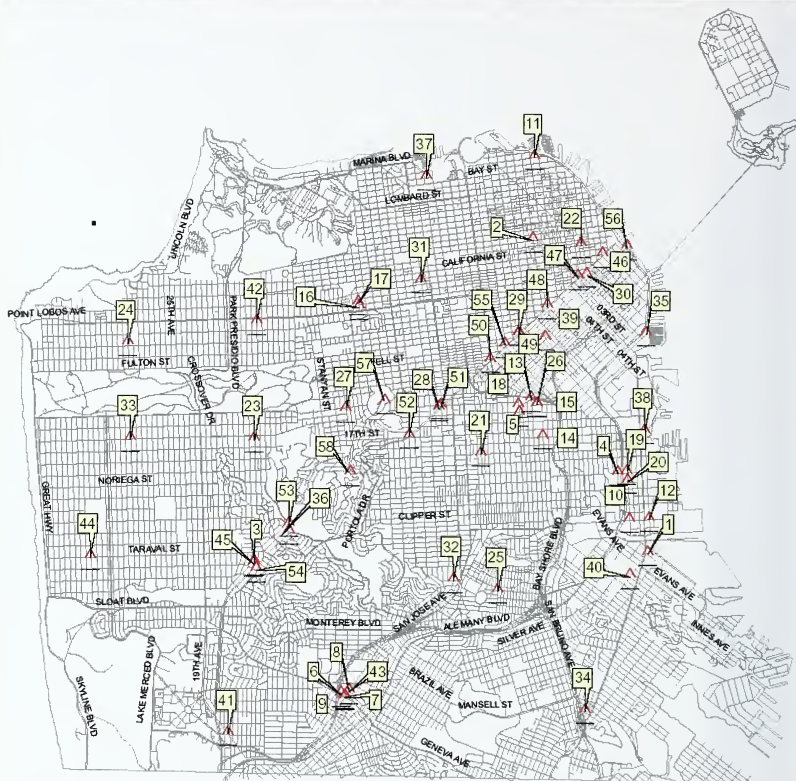
Note <sup>1</sup> - The approved appropriation for the FY05/06 Five-Year Capital Plan was \$612,841,537. Of this amount, \$329,213,639 was expended as of 2/14/06; the \$283,627,698 balance will be expended as planned in the above schedule.

Note <sup>2</sup> - The requested appropriation for the amendment to the FY05/06 Five-Year Capital Plan is \$16,342,714. Of this amount, \$15,707,484 represents reprogrammed funds and \$635,230 corresponds to new funds to be expended as planned in the above schedule.

Note <sup>3</sup> - The requested appropriation for the FY06/07 Five-Year Capital Plan was \$46,528,071. Of this amount, \$12,644,247 represents reprogrammed funds and \$33,883,824 corresponds to new funds to be expended as planned in the above schedule.

Note <sup>4</sup> - The amount for FY06/07 is already reflected in this schedule, under "Funded Airport Capital Plan" above.

## B. Municipal Transportation Agency Facilities



## B. Municipal Transportation Agency Facilities

The Municipal Railway division of the Municipal Transportation Agency (MTA) owns and operates 53 facilities, power substations, duct banks, subway stations, tunnels, and rail right-of-ways. The Parking Authority, a division of the MTA, owns 21 off-street parking lots and 11 parking garages.

Map ID	Facility	Map ID	Facility
1	Burke Avenue Facility	30	Downtown Power Substation
2	Cable Car Barn	31	Fillmore Power Substation
3	Central Control	32	Glen Park Power Substation
4	Facilities Maintenance Offices & Shops	33	Judah Power Substation
5	Flynn Division	34	Keith Power Substation
6	Green Light Rail - Annex	35	King Power Substation
7	Green Light Rail - Geneva Facility	36	Laguna Honda Power Substation
8	Green Light Rail - Metro Center	37	Marina Power Substation
9	Green Light Rail - Upper Yard	38	Mission Bay Power Substation
10	Islais Creek Site (under construction)	39	Outer Mission Power Substation
11	Kirkland Division	40	Phelps Power Substation
12	Metro East Site (under construction)	41	Randolph Power Substation
13	Overhead Lines Department	42	Richmond Power Substation
14	Potrero Division	43	San Jose Power Substation
15	Power Control Center	44	Taraval Power Substation
16	Presidio Division Offices	45	West Portal Power Substation
17	Presidio Division Shops	46	Embarcadero Subway Station
18	Scott Division	47	Montgomery Subway Station
19	Woods Division Operations	48	Powell Subway Station
20	Woods Division Shops	49	Civic Center Subway Station
21	"E" Station Power Substation	50	Van Ness Subway Station
22	"J" Station Power Substation	51	Church Subway Station
23	"N" Station Power Substation	52	Castro Subway Station
24	Balboa Power Substation	53	Forest Hill Subway Station
25	Bernal Power Substation	54	West Portal Subway Station
26	Bryant Power Substation	55	Market Street Subway Tunnel
27	Carl Power Substation	56	MUNI Metro Turnback Tunnel
28	Church Power Substation	57	Sunset Tunnel
29	Civic Center Power Substation	58	Twin Peaks Tunnel

## **A. Municipal Transportation Agency Facilities**

Muni's Capital Improvement Program (CIP) is a set of projects that Muni plans to undertake to replace, rehabilitate, or enhance system assets. It is organized as a set of programs as follows:

**Fleet Program** – The rehabilitation and replacement of Muni's vehicles includes both revenue vehicles, used to transport passengers (motor coach, trolley coach, light rail, historic streetcar, cable car, and paratransit) and non-revenue vehicles, used to support the revenue fleet and the system infrastructure.

**Infrastructure Program** – Rehabilitation, replacement and modification of rail, communications, signals, overhead, subway, stations, and cable car systems. Also includes adding and improving ADA-mandated Key Stops, additional accessibility improvements, and transit preferential streets.

**Facilities Program** – Develop, manage, and maintain space for the operating, maintenance, administration, and storage needs required to support Muni operations. This includes fixed equipment such as vehicle lifts and ventilation systems.

**Equipment Program** – Provides the tools needed for the continued operation of Muni's operating, maintenance, and administrative functions. This program provides for the replacement and acquisition of such items as rail grinders and computers.

**Other Projects** – A limited number of projects do not fit into the CIP programs described above, including: graffiti prevention and security, Transbay Terminal replacement, and Treasure Island Ferry Terminal.

Some capital projects are programmatic, such as fleet and infrastructure replacements projects that recur on a regular basis. Expansion projects such as the Third Street Light Rail line are developed through major corridor studies.

Muni's total capital need is \$8.8 billion over the ten-year period. This need far outstrips the projected capital revenues of \$3.5 billion. For this reason, many capital projects will have to be deferred. There are two categories of capital projects: those needed to maintain the current level of service, called renewals and those projects that could be pursued if new funding sources are identified, called enhancements. Approximately 87% of funds needed for Muni's renewal projects have been secured, while 23% of the enhancement project funding has been secured.

On the Parking and Traffic side of the MTA, the Fleet program is focused on regular replacement of parking control enforcement vehicles and support vehicles based on a 10-year useful life for the paint, meter, sign, and signal shops. Infrastructure capital projects

include a wide variety of programmatic improvements to traffic signs, signals, and pavement markings; pedestrian facility improvements and upgrades of bicycle lanes and paths; and, extensive improvements to neighborhood streets to make them more livable and safe for all users – pedestrians, cyclists, transit, and autos.

## **1. Renewal Program**

In the next ten years, Muni will have the funding needed to perform most of the renewal and repair projects needed to maintain the current service level. Highlights of these projects include: ongoing cable car renovation projects, historic vehicle rehabilitation, some motor coach and trolley replacement, purchase and installation of wayside fare collection systems, rail replacement projects, overhead line rehabilitation, expansion of the NextBus vehicle locator service, various facility safety improvements, replacement of the maintenance lift at Flynn Yard, and a study of the Balboa Park station area.

Parking and Traffic renewal and repair programs for various signal, sign, and striping projects has annual Prop K funding of \$4.7 million. These local sales tax funds will support maintenance and upgrades of signals and streets, including new mast arms, wiring for pedestrian signals, raised flashing pavement reflectors, transit lane markings, and some replacement of red light photo enforcement equipment.

## **2. Enhancement Program (FY2007 – FY2011)**

In the next five years, Muni has four fully funded enhancement projects.

- **Transit Preferential Streets, Bus Stops.** This \$1.5 million project will install bus stop improvements, such as bus bulbs and lengthened bus stops, design and construct passenger-boarding islands at Metro stops where passengers must board and alight in the street, and other changes that will reduce delays and improve passenger safety.
- **Transit Preferential Streets, Priority Signals.** This \$2.7 million project will procure and install on-board and wayside priority signals on the 14-Mission and 38-Geary lines. Goals include increasing average operating speeds and reducing overall running time by reducing the amount of time spent waiting for traffic signals and the associated deceleration and accelerations. This project will employ a single technology that could be used on all Muni modes.
- **Communications Connectivity & Passenger Information.** This \$2.6 million project will provide multipurpose connectivity in the Metro subway and facilitate modernization of safety, security, and passenger information and control systems on platforms, in agent booths, and in signal relay rooms. This project will enable utilization of unallocated capacity of the existing fiber-

optic cables to establish high-speed connectivity with the Metro subway, and will add two large displays in concourse areas to enhance timely communication of system performance and arrival predication to Muni patrons.

- **MIS: Scheduling/Auto Dispatch System Replacement.** This \$4.2 million project, which is currently underway, will acquire an integrated, client-server based scheduling and dispatch system that will replace the current scheduling system developed in the 1970s that is no longer supported by a vendor. The new system, called Trapeze, will have the ability to do schedule making, run cutting, rostering, sign-up, dispatch, and timekeeping functions.

### 3. Enhancement Program (FY2012 – FY2016)

The second half of the 10-year Capital Plan will include:

- Farebox Replacement Program - \$32.3 million

MTA capital grants staff will be working to secure funding for other enhancement projects the agency hopes to develop during this period including:

- Third Street Light Rail, Phase 2 – Central Subway
- Islais Creek – a maintenance and storage yard for the motor coach fleet and alternative fueled vehicles, to replace the Kirkland Yard
- Expansion of the J, K, L, M, and N lines with the purchase of 10 additional vehicles
- Bus Rapid Transit on Van Ness Avenue

## B. Deferred Capital and Emerging Needs

A number of important Muni capital projects will be deferred in the next ten years until the Agency is able to secure full funding. These include:

- **Mid-life Rebuilds of the Fleet.** Motor coaches, trolley coaches, and light rail vehicles all require mid-life rebuilds in order to attain the manufacturer's estimate of usable life and maintain adequate vehicle availability throughout that period. The total estimated cost, deferred in the past and through the next 10 years, is approximately \$500 million. Funding priorities for federal transit capital dollars in the region do not give priority for midlife rebuilds and local dollars are fully programmed through 2020 to provide match for fleet replacement. With no source for this project, Muni has struggled to maintain vehicle availability and anticipates increasing challenges.

- **Transit Preferential Streets.** A \$116 million project to design and implement a variety of low- to medium-cost treatments to speed transit vehicle flow. Elements include exclusive or semi-exclusive transit lanes, colored or textured surface treatments, signal timing or priority, bus bulbs, stop respacing and relocation, and replacing stop signs with signals. Priority corridors include Market Street, 19<sup>th</sup> Avenue, Potrero, Outer Mission, Stockton, and Geneva.
- **Facility Preservation/Improvement Program.** This \$11 million project includes a variety of improvements to Muni's existing operating, storage, maintenance, and administrative facilities. It would correct problems of system deterioration and/or deferred rehabilitation and safety hazards.
- **Miscellaneous Equipment Program.** \$42 million for the acquisition and replacement of the equipment needed to support all aspects of Muni's operations, maintenance, and administrative functions. A significant backlog of equipment needs exists due to the lack of capital grants available for equipment replacement.

Parking and Traffic also has several significant projects that will be deferred in whole or part due to a lack of full funding.

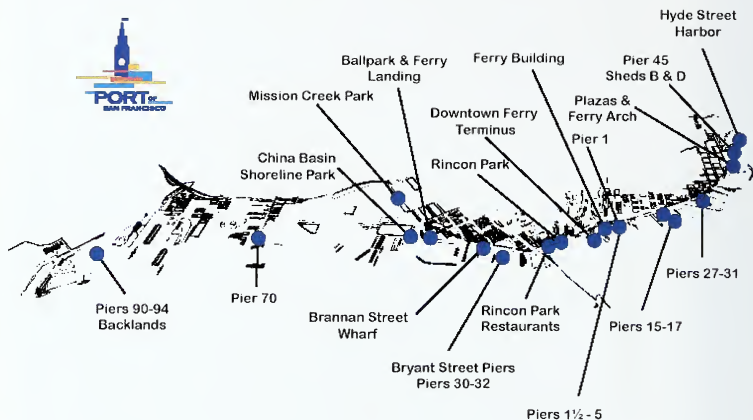
- **Relocation of the Sign Shop and Paint Shop.** Both of these facilities are aging rental property and there would be long term savings and efficiencies if they were relocated to property owned by MTA.
- **Relocation or remodel of the Parking Meter Shop.** Currently located in city owned property with significant deferred maintenance.
- **Signs, Signals, and Striping.** Although funding from Prop K is available for some programmatic repair and maintenance, 62% of estimated sign needs and 34% of striping needs are unfunded.
- **Enhancement projects related to traffic calming, bicycle access, and pedestrian safety.** These projects have no source of funds while Sfgo (intelligent transportation system including transit signal priority, communications with signal controllers, changeable message signs, and traffic cameras) is only partially funded.

# MTA Capital Projects and Programs

Program/Project Summary Level	Prior Years	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012- FY2016	Total Cost	Funding Total	Total Deferred	Deferred Renewal	Deferred Enhancement
<b>MUNI</b>												
<b>Costs</b>												
Fleet	533,512	17,087	31,052	97,092	112,578	72,411	827,065	1,690,799	1,010,558	680,241	187,065	493,176
Infrastructure	1,045,641	89,554	468,915	465,913	754,739	346,749	3,526,264	6,697,776	2,206,273	4,491,504	41,149	4,450,355
Facilities	231,429	1,000	40,604	1,000	6,836	1,000	6,212	288,082	156,943	131,138	54,023	77,115
Equipment	42,053	2,910	5,790	3,148	3,274	6,365	19,178	92,717	8,002	74,715	27,679	47,036
Other Projects	66,130	0	93	0	93	0	279	66,596	65,157	1,439	1,439	0
<b>TOTAL</b>	<b>1,918,765</b>	<b>110,551</b>	<b>546,455</b>	<b>567,153</b>	<b>877,520</b>	<b>428,525</b>	<b>4,378,999</b>	<b>8,825,969</b>	<b>3,446,934</b>	<b>5,379,036</b>	<b>311,355</b>	<b>5,067,681</b>
<b>Revenues</b>												
Federal	682,204	72,102	125,006	115,129	140,717	139,501	639,606		1,894,265			
State	250,907	0	22,570	30,000	32,200	30,000	0		365,677			
Regional	83,355	7,428	6,690	6,691	4,093	2,594	13,059		123,910			
Local	501,603	46,929	58,484	57,343	90,532	132,584	175,607		1,063,082			
<b>TOTAL</b>	<b>2,411,180</b>	<b>198,561</b>	<b>360,326</b>	<b>354,292</b>	<b>440,459</b>	<b>474,180</b>	<b>1,467,878</b>		<b>3,446,934</b>			
<b>DPT</b>												
<b>Costs</b>												
Fleet	2,650	1,290	1,230	1,230	1,230	1,230	5,830	14,780	0	14,780	14,780	0
Infrastructure	26,840	51,361	47,946	27,946	27,946	27,946	139,737	346,722	138,715	211,007	12,843	138,164
Facilities	250	0	0	400	500	500	0	1,650	0	1,650	0	1,650
Equipment	0	90	0	0	0	0	0	90	0	90	0	90
<b>TOTAL</b>	<b>29,740</b>	<b>52,741</b>	<b>49,176</b>	<b>29,576</b>	<b>29,676</b>	<b>29,676</b>	<b>145,567</b>	<b>366,242</b>	<b>138,715</b>	<b>227,527</b>	<b>27,623</b>	<b>199,904</b>
<b>Revenues</b>												
Federal	14,315	0	0	0	0	0	0		14,315			
State	373	0	0	0	0	0	0		373			
Local (Sales Tax)	12,000	11,203	11,203	11,203	11,203	11,203	56,012		124,027			
<b>TOTAL</b>	<b>26,688</b>	<b>11,203</b>	<b>11,203</b>	<b>11,203</b>	<b>11,203</b>	<b>11,203</b>	<b>56,012</b>		<b>138,715</b>			



## C. Port of San Francisco



## C. Port of San Francisco

The Port of San Francisco owns or has responsibility for 39 pile supported pier structures, 245 commercial and industrial buildings, over three miles of streets, sidewalks, and elements of utility infrastructure that supports them. Smaller, but no less important, are such capital items as cargo cranes, railroad track, and heavy equipment used by the Port's maintenance division, which also must be maintained by the Port.

## **A. Port of San Francisco Facilities Highlights**

All of the piers currently in use by the Port or Port tenants were originally constructed around 100 years ago. Of those, only eight have been rehabilitated since 1950 including Pier 39, AT&T Ballpark, the Ferry Building, Pier 1, Pier 48, Pier 80, Pier 45, and Pier 27. Most of the shed buildings atop the Port's piers are 40 to 100 years old. The venerable status of these structures makes many of them historically significant.

The Port of San Francisco is currently applying for a National Register Historic District along the northeast waterfront from Pier 45 in the north to Pier 48. This district would include 20 historic piers and eight other structures of historic significance. The Pier 70 area also includes 35 buildings and many other features recognized to be of historic significance.

Piers 1½, 3 and 5 located north of Pier 1 are currently under reconstruction under a private/public partnership development and is scheduled to be complete by summer 2006. The Port is also currently constructing the Illinois Street Bridge which will allow freight rail access to Pier 80, the Port's cargo facility. The bridge and approach roads should be complete by December 2006 at which time the Port will be better able to market the Pier 80 facility to prospective clients.

However, the Port still requires significant investment to repair, replace, and upgrade its facilities to continue to function. The proposed 10-year capital plan identifies a total of \$1.2 billion primarily for deferred maintenance and seismic upgrade work required on Port facilities. Of that amount, the Port has identified a total of \$414.5 million in funding including: the Port's tenants; the Port's operating budget; revenue bonds; development projects; and Infrastructure Financing District bonds. The largest project in the Port's Plan is Pier 70 which is estimated to cost approximately \$313 million to upgrade salvageable buildings, demolish unsalvageable buildings, environmental remediation, street and utility infrastructure improvements, and building an open space park area near the water's edge.

The Port has developed policy options such as grant fund and potential development projects to address \$557.2 million of the \$814.4 million unfunded portion of its Plan. However, each of those options will require significant staff time to develop and implement as well as support from the City's policy makers.

### **1. Renewal Program**

\$976.2 million or 77% of the projects identified in the Port's 10-year capital plan address renewal and repair of existing facilities or deferred maintenance. Of the \$414.5 million that the Port proposes to fund in the 10-year capital plan, approximately \$363 million or 87.7% are renewal and replacement projects which are

primarily sub-structure pier repairs and basic repairs to the pier super-structure such as replacing roofs, utilities, and rolling doors. In addition, this Plan includes street resurfacing and sewer repair projects. Port tenants as required in their leases will fund some of these repairs. The Port through its annual operating budget will cover other repairs. The balance will be covered by development projects and Port revenues bonds that are discussed in the subsequent enhancement or improvement sections because some of these repairs will be combined with seismic upgrades for various Port facilities.

## **2. Enhancement Program (FY2007 – FY2011)**

The ten-year capital plan proposes an investment of \$152.5 million to fund improvements to the Port's facilities, including \$135 million for seismic upgrades to: Piers 15 and 17 where the Exploratorium is planning to renovate the facility to use as its new location; Piers 27-31 which is under development for a mixed-use project; Pier 30-32 which is under development to be used as a cruise terminal; and Piers 9, 19, 50, and 80 through issuing Port revenue bonds in 2010-11.

In addition, the Port's 10-year plan programs \$17.5 million to fund infrastructure improvements with Infrastructure Improvement District bond funds at Pier 70 including constructing streets, sidewalks, streetlights, sewer, and water mains.

Further, while not part of the Port's 10-year capital plan, the development projects identified in this Plan will include major renovations to accommodate new uses such as transforming storage shed space at Pier 15 to an interactive museum, but such work would be funded by a developer or tenant and not considered a Port expense. As such, the Port did not include those costs in its 10-year capital plan.

### ***Development Projects***

The following piers are currently public-private partnership development projects in which a developer enters into a 66-year lease with the Port for property, secures financing and is responsible for project delivery. The Port expects these development projects will be in construction in the next five years. As previously noted, the cost estimates included in this Plan only include repair and replacement costs and seismic upgrades that the Port would need to do to the facilities to continue operating them for their current uses. The descriptions below include enhancements that the developers are making to the facilities to change their use the cost of which is not included in this Plan.

- **Piers 15 – 17** – The Port is entering into an Exclusive Negotiating Agreement (ENA) with the Exploratorium to renovate Piers 15-17 to relocate the Exploratorium which is a museum of science, art and human perception, currently located at the Palace of Fine Arts. During the past several years the

museum has been looking for a new home to accommodate its expanding needs. The Exploratorium proposed to lease Pier 15 under a long-term lease and develop it for museum and ancillary uses, with the idea of expanding into Pier 17 in later years. Piers 15 and 17 are located in the Northeast Waterfront on The Embarcadero at Green Street. 10-year capital plan cost = \$57.2 million.

- **Piers 27-31** – Located on the northeastern waterfront, approximately one mile north of the Ferry Building. Piers 27-31 are under the jurisdiction of the Port Commission and currently consist of 832,369 square feet of pier space. Under the proposed Project Plan, the Developer would be awarded a 66-year lease agreement by the Port Commission (Port), to renovate, construct, occupy, and rent out space at Piers 27-31. 10-year capital plan cost = \$68.2 million.
- **Piers 30-32** – Located south of the Bay Bridge, The Port entered into an ENA with Lendlease to develop Piers 30-32 for a cruise ship terminal that will include 300,000 square feet of office space, 200,000 square feet of retail shops, 7-acres of open space, and an adjacent park on the waterfront (Brannen Street Wharf). 10-year capital plan cost = \$65.2 million.

### **3. Enhancement Program (FY2012 – FY2016)**

The second half of the 10-year Plan will focus on Port revenue bond and Infrastructure Financing District bond funded projects.

#### ***Port Revenue Bond Funded Projects***

The Port estimates to be able to issue \$85.9 million by 2010-11. The Port selected projects to fund through revenue bonds based on whether (1) the facility is currently profitable, (2) has the potential to be profitable because it is under-utilized, (3) leases expire in the next 10-years that provide an opportunity to enter into new leases for more than the current square footage amount if the Port makes improvements to it, or (4) the facility is critical to supporting the Port's operations. Based on these criteria, the Port proposes to make improvements to the following Port facilities with Port revenue bonds.

- **Pier 9** – located on the Embarcadero Roadway at the foot of Broadway, Pier 9 has office space and maritime support facilities on its aprons. It is currently one of the Port's most profitable facilities netting over \$1 million annually. Thus, the Port decided that investing in upgrades would help ensure Pier 9 continued to be a profitable facility. Estimated 10-year capital plan cost = \$17.1 million.

- **Pier 19** – located on the Embarcadero south of Green Street, Pier 19 currently includes warehouse and maritime support leases that expire after December 2008 which gives the Port an opportunity to increase rents if it can make improvements to the facility. Estimated 10-year capital plan cost = \$16.2 million.
- **Pier 50** – located on Terry Francois Blvd south of AT&T Ballpark, Pier 50 houses the Port's maintenance facility. Therefore, it is a high priority for the Port to at least repair it such that it can continue to provide that function. Estimated 10-year capital plan cost = \$52.8 million of which the proposes to allocate \$26.6 million in revenue bonds to cover repairs and seismic upgrades required for the valley between Sheds A& B to allow access to Pier 50 and some sub-structure and superstructure repairs on the rest of the pier.
- **Pier 80** – located in the southern waterfront near Cesar Chavez Street, Pier 80 is the Port's cargo facility primarily focused on bulk and break-bulk cargo. It is currently under-utilized. Financing needed repairs could be covered by increased revenues if the Port is better able to market this facility. In addition, as noted earlier, the Port is constructing the Illinois Street bridge that will allow freight rail access to Pier 80 making it easier for the Port to market Pier 80 to prospective clients. Estimated 10-year capital plan cost = \$87.9 million of which the Port proposes to allocate \$26 million in revenue bonds to cover sub-structure and super-structure repairs.

#### ***Port Infrastructure Financing District***

The State recently adopted legislation that allows the City to create an Infrastructure Financing District (IFD) within the Port's jurisdiction, an alternative method of collecting property tax increment under state law that doesn't require a blight finding nor does it require a set-aside of a portion of the tax increment for affordable housing. Since the Port can issue IFD debt after property tax or possessory interest tax<sup>1</sup> increments has accumulated, the Port's 10-year capital plan assumes IFD debt issuance in the last years of the 10-year period. Based on known Port development projects and an annual growth of \$100,000, the Port expects to be able to issue approximately \$17.5 million in IDF bonds.

**Pier 70 Infrastructure Improvements** - The Capital Plan identifies a total of \$313 million related to the Pier 70 complex including: environmental remediation, constructing and reconstructing streets, sidewalks, street lighting, and sewer and water system, open space development, historic building preservation and reuse of only a portion of

<sup>1</sup> Since the Port's property is owned by the State, Port non-governmental tenants pay possessory interest taxes in lieu of property taxes.

the site, principally along the main 20th Street, which is lined with the site's most beautiful and valuable historic properties, stretching to the waterfront. Long a ship-building and ship-repair site, Pier 70 now houses the most important collection of historic industrial buildings west of the Mississippi but owing to age, type of construction, deterioration, lack of code compliance and absence of site utilities and roads or walkways, most of the 35 buildings on the site are not used and only a few are leased.

Unfortunately, the Port has sought developers for Pier 70 in the past without success primarily due to the condition of the historic buildings and required the environmental remediation. The Port is working on completing a viable master plan that includes: 1) a survey of the historic resources and development of preservation options; and 2) an economic and planning feasibility analysis of development options for Pier 70. We expect to complete enough of this master plan in 18-months to draft and issue a development RFP for Pier 70.

The project envisions bringing most, but not all, of the historic buildings and artifacts (fences, cranes), up to current code, repairing or replacing all building utilities and building systems, but not adding new square feet; work would be done to meet the standards of the U.S. Secretary of the Department of Interior in keeping with the buildings' eligibility for the National Register. Creation of new public open space along the edge from Pier 66 to the SF Drydock leasehold is another element of the project.

The Port's 10-year capital plan programs funds to cover Pier 70 campus infrastructure costs which consist of \$20 million to construct streets, sewers, water mains, sidewalks, and street lighting. The Port chose to fund Pier 70 infrastructure work because it consists of traditional public improvements that redevelopment agencies typically fund with tax increment funds. In addition, the Port would be better able to attract a developer for Pier 70 if it can invest Port funds in the infrastructure portion of the project.

## **B. Deferred Projects**

The Port's proposed ten-year capital plan defers improvements to 67 of its facilities estimated to cost a total of \$814.4 million. The most significant deferred projects include the following Port facilities:

Port Facility	Estimated Cost to Repair & Seismically Upgrade
Agriculture Building – yellow brick building south of the ferry building that currently houses Amtrak ticket office and waiting area as well as miscellaneous office space.	\$9.5 million
Pier 26 – warehouse & office space	\$45.9 million
Pier 28 – warehouse & office space	\$28.4 million
Pier 35 – the current cruise terminal	\$37.5 million
Pier 38 – maritime recreation facility located next to South Beach Harbor	\$41.6 million
Pier 50 – houses the Port's maintenance facility	\$26.2 million
Pier 48 – Located south of ATT Park, this pier is currently unused while the Port undergoes CEQA review of eligible uses.	\$12 million
Pier 54 – Office, storage and various maritime uses	\$33.2 million
Pier 70 complex – includes several historic industrial buildings built in the late 1800s and cranes. See description in the section above for more details on the Pier 70 complex.	\$295.6 million
Pier 80 – cargo facility	\$61.9 million

The Port thinks that it may be able to secure grant funding for Piers 35 and 80 if the voters approve the State's proposed infrastructure bond that is supposed to be on the November 2006 ballot.

The Port believes the Agriculture Building, Pier 33, Pier 35, Pier 26, Pier 48, and Pier 70 will make good candidates for future development projects. However, it has not issued RFPs to do so nor has it secured approvals from various state agencies such as State Lands Commission and Bay Conservation and Development Commission (BCDC) for project scopes. Thus, while the Port has identified these facilities as potential development projects, it is premature to conclude that they will be repaired and upgraded by a developer.

If the Port is unable to identify a funding source or developer to repair and seismically upgrade these facilities, it will eventually need to close the facilities and demolish them if it can secure the funds to do so or allow them to deteriorate and fall into the bay.

# Port Facilities and Infrastructure

Program/Project	FY2006 Cost Estimate	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 - FY2016	PLAN TOTAL	Deferred
<b>Costs</b>									
Dredging	30,000,000	3,000	3,000	3,000	3,000	3,000	15,000	30,000	0
Facility Condition Survey	3,000,000	300	300	300	300	300	1,500	3,000	0
Emergency Facility Maintenance and Repair	10,000,000	1,000	1,000	1,000	1,000	1,000	5,000	10,000	0
Equipment	1,389	0	398	347	347	296	0	1,389	1
Street Repairs, Sewers, Sidewalks, etc	14,819,000	0	756	400	500	660	12,503	14,819	0
Annual Repair & Replacement Projects (1)	32,355,595	3,404	3,308	3,716	3,615	3,506	9,808	27,356	4,999
Pier 33	21,278,000	0	0	0	0	0	0	0	21,278
Pier 80	87,873,000	0	0	0	0	26,000	0	26,000	61,879
Pier 15	26,971,000	0	0	26,971	0	0	0	26,971	0
Pier 27	21,368,000	0	0	21,368	0	0	0	21,368	0
Pier 17	22,465,000	0	0	22,465	0	0	0	22,465	0
Pier 31	19,714,000	0	0	19,714	0	0	0	19,714	0
Pier 40	25,194,000	0	17,033	0	0	0	0	17,033	8,161
Pier 9	19,141,000	0	368	0	0	17,100	0	17,468	1,673
Pier 32	65,247,000	0	0	0	0	65,247	0	65,247	0
Pier 19	18,229,000	0	0	0	0	16,200	0	16,200	2,029
Pier 35	37,554,000	0	0	0	0	0	0	0	37,554
Pier 50	52,784,000	0	0	0	0	26,600	0	26,600	26,184
Pier 54	33,182,000	0	0	0	0	0	0	0	33,182
Pier 70 Campus	313,088,303	0	0	0	0	0	17,500	17,500	295,588
Other Port Facilities & Piers	406,958,485	0	0	0	0	0	16,517	51,366	355,592
Reduce by Annual Repair & Replacement Projects (1)	(32,355,595)	0	0	34,849	0	0	0	34,849	(32,356)
<b>Revenues</b>	<b>1,228,873,177</b>	<b>7,704</b>	<b>26,163</b>	<b>134,129</b>	<b>8,762</b>	<b>159,909</b>	<b>77,828</b>	<b>414,496</b>	<b>814,378</b>
Port Tenant Responsibility	33,918,000		17,401	0	0	0	16,517	33,918	
Port Operating Budget (prorated allocations)	86,563,595	7,704	8,762	8,762	8,762	8,762	43,811	86,564	
Port Revenue Bonds	85,900,000	0	0	0	0	85,900	0	85,900	
Development Projects	130,614,000	0	125,367	0	0	65,247	0	190,614	
Infrastructure Financing District	17,500,000	0	0	0	0	0	17,500	17,500	
<b>Annual Repair &amp; Replacement Projects are included in the piers and facilities listed in the Port Draft 10-Year Capital Plan. The Port will annually select which projects to fund based on priority.</b>	<b>414,495,595</b>	<b>7,704</b>	<b>26,163</b>	<b>134,129</b>	<b>8,762</b>	<b>159,909</b>	<b>77,828</b>	<b>414,496</b>	



The map illustrates the Hetch Hetchy Regional Water System, showing the flow of water from the San Francisco Bay Area to San Jose. Key features include:

- San Francisco Bay Area:** The starting point of the water system, with labels for "SAN FRANCISCO BAY" and "SAN FRANCISCO RIVER".
- Crystal Springs Dam:** A major dam located on the San Francisco River, with "Crystal Springs Reservoir" below it.
- Hetch Hetchy Reservoir:** A large reservoir located further downstream, with "HETCH HETCHY DAM" and "HETCH HETCHY RESERVOIR" labeled.
- San Jose River:** The river that flows through San Jose, with "SAN JOSE RIVER" and "SAN JOSE" labeled.
- San Jose Dam:** A dam located on the San Jose River, with "SAN JOSE DAM" and "SAN JOSE RESERVOIR" labeled.
- San Jose Water Treatment Plant:** The final destination of the water system, located in San Jose.

The map also shows various other dams and reservoirs, including "Crystal Springs Dam", "Crystal Springs Reservoir", "Hetch Hetchy Dam", "Hetch Hetchy Reservoir", "San Jose Dam", and "San Jose Reservoir". The map is color-coded with green for land and blue for water.

### Local Water Facilities ↓



## **D. Public Utilities Commission—Water System Improvement Program**

### **A. Water System Improvement Program Highlights**

The San Francisco Public Utilities Commission (SFPUC) has embarked on a multi-billion dollar multi-year capital program to rebuild its water system. The Water System Improvement Program (WSIP) will deliver capital improvements that enhance the SFPUC's ability to provide reliable, affordable, high quality water to its 2.4 million customers in an environmentally sustainable manner. The WSIP is structured to cost-effectively provide water quality, seismic reliability, delivery reliability and water supply improvements for the future.

In October 2004, the SFPUC General Manager ordered a thorough review of the 2002 CIP in order to ensure system-wide integration of the projects within the program. This effort provided the groundwork for a revised capital improvement program, resulting in the refinement of program objectives, the development of level of service goals and the renaming of the CIP to the Water System Improvement Program (WSIP).

The development of this system-wide integrated program involved numerous program specific public workshops before the San Francisco Public Utilities Commission from October 2004 through January 2005. At the final workshop, the members of the Commission established direction on water system levels of service for the WSIP. The SFPUC published a program description based upon these levels of service in February 2005, to be used in initiating the Programmatic Environmental Impact Report (PEIR).

Following the February 2005 program description, the SFPUC hired Parsons Water & Infrastructure, Inc. with CH2M Hill to provide program, project, and preconstruction management services on the WSIP. In an effort to complete the program review initiated by the General Manager, their first task was to provide an independent assessment of the WSIP relative to the adopted Level of Service (LOS) goals. The consultants provided the results of their assessment and their recommendations in the Water System Improvement Program Assessment Report, published on October 21, 2005.

The assessment supported the overall program to meet the levels of service goals established, and the necessity and scope of individual projects in the WSIP. However, it did identify some specific recommendations for changes in the overall program and individual projects. In addition to the independent assessment, a seismic safety task force was convened to analyze system vulnerabilities and propose design criteria for seismic projects as they proceed.

Building from the independent review's recommended program changes, the SFPUC further refined the program to provide the Commission with a final revised program for adoption. Upon review of the revised program and recommendations upon which SFPUC management, staff, the assessment team, BAWs, and BAWSCA agreed, the Commission formally adopted the revised program on November 29, 2005. This set the stage for a new program baseline from which to measure WSAIP progress.

In order to formally document the newly adopted program revisions, the SFPUC issued a new WSIP Program Description in January 2006. This new WSIP program and the recommendations upon which SFPUC management, staff, and the assessment team agreed are included in this 10 Year Capital Plan.

## **1. Program Objectives and Levels of Service (LOS)**

The WSIP describes the levels of service, scope, and schedule for the WSIP and the projects that fulfill them. The process began by refining the SFPUC goals and developing objectives, or Levels of Service. The outcome of this process allowed the SFPUC to develop project specific criteria for the program that were consistent with the SFPUC's mission for the water system: providing high quality water to its customers in a reliable, affordable and environmentally sustainable manner.

There are two fundamental principles of this program: a clean unfiltered water source and a gravity driven system. All measures of reliability evolve from these principles. Projects within the WSIP will incorporate environmental stewardship policies and principles of the SFPUC.

The objectives of the program are to:

- (1) Furnish system improvements to provide high quality water that reliably meets current and foreseeable local, state, and federal requirements.
- (2) Reduce vulnerability of the water system to damage from earthquakes.
- (3) Increase reliability of the system to deliver water by improving redundancy needed to accommodate planned outages for maintenance and unplanned outages resulting from facility failure.
- (4) Provide near-term improvement of water supply/drought protection.
- (5) Set forth long-term water supply/drought management options for technical evaluation, cost analysis, and environmental review.
- (6) Enhance sustainability through improvements that optimize protection of the natural and human environment.
- (7) Provide improvements resulting in a cost-effective fully operational water system.

### ***Levels of Service***

The Commission provided direction on level of service goals for water quality, seismic reliability, delivery reliability, and water supply. These levels of service goals were the basis for developing the scope and magnitude of projects comprising the WSIP. Levels of service for these program objectives are summarized below.

### ***Water Quality***

- Provide a high quality water supply that reliably meets current and foreseeable local, state and federal requirements.
- Maintain filtration avoidance for Hetch Hetchy supply.

- Implement watershed protection through land acquisition and management projects.

#### ***Seismic Reliability***

- Deliver minimum system demand (winter month demand) within 24 hours after a major earthquake. Minimum winter month demand is estimated at 215 MGD in 2030.
- Deliver minimum system demand equally to three regions within the service area to the extent possible. These regions include: 1) the East and South Bay Area, 2) the Peninsula, and 3) City of San Francisco. At least 70 percent of the turnouts within each region should receive flow to achieve minimum month demand for the region. Estimated 2030 minimum month demands for the three regions noted above are 96 MGD, 37 MGD, and 82 MGD respectively.
- Restore facilities to meet average demand within 30 days after a major earthquake.
- Design facilities to meet the established seismic upgrade criteria. Various levels of hardening will be required for different components of the system, depending upon site-specific conditions and system functions.

#### ***Delivery Reliability***

- Deliver average demand under the condition of one unplanned outage concurrent with one planned outage of major facilities. Average demand in 2030 is estimated at 300 MGD.
- Provide redundancy to enable maintenance on a schedule required for reliable water delivery.
- Provide system capacity to replenish local area reservoirs as needed to maintain reliable water deliveries.

#### ***Water Supply***

- Accommodate a target delivery reduction during a design drought of 8.5 years that is time-phased. During the first three years, the average reduction is anticipated at 3.3%. During the second three years, the average reduction is anticipated at 13.3%. (Six years is historically the longest drought experienced.) For the last 2.5 years of the design drought, the average reduction is anticipated at 20%. This represents an increase in firm yield from 223 MGD to 256 MGD.
- Increase long-term water supply for drought management through consideration of conservation, recycling, ground water storage, desalination and transfers.

- Set forth long term supply options for evaluation and review to occur concurrent with implementation of projects required for seismic reliability, delivery reliability and meeting water quality requirements.

## B. Regional and Local Projects

The Water System Improvement Program includes projects within San Francisco that are part of the local water system and projects in the San Joaquin, Sunol Valley, Bay Division, Peninsula, and San Francisco regions that are part of the regional water system. The following are a list of projects that comprise the Water System Improvement Program.

### ***Regional Projects***

Region	Projects
San Joaquin	Tesla Portal Disinfection Facility Lawrence Livermore Supply Improvements San Joaquin System Advanced Disinfection
Sunol Valley	SVWTP - New Treated Water Reservoirs Calaveras Dam Replacement Irvington Tunnel Alameda Siphon Upgrade Additional 40 mgd Treated Water Supply San Antonio Pump Station Upgrade Pipeline Repair and Readiness Improvements Standby Power Facilities - Various Locations Alameda Creek Fishery Enhancement
Bay Division	BDPL Nos. 3 and 4 Crossovers BDPL Nos. 3&4 Crossover/Isolation Valve @ Hayward Fault Seismic Upgrade of BDPL Nos. 3&4 @ Hayward Fault Bay Division Pipeline Reliability BDPL 4 Sipline PCCP Sections SFPUC/EBMUD Inter-tie Installation of SCADA System - Phase 2 & System Security Upgrades
Peninsula	Cross Connection Controls Pulgas Balancing Reservoir Rehabilitation Crystal Springs/San Andreas Transmission Upgrade Capuchino Valve Lot Improvements Baden and San Pedro Valve Lots Improvements HTWTP Short-term Improvements HTWTP Long-term Improvements New Crystal Springs Bypass Tunnel Adit Leak Repair - Crystal Springs/Calaveras Lower Crystal Springs Dam Improvements
SF Regional	Sunset Reservoir - North Basin Crystal Springs No. 2 Pipeline Replacement San Andreas No. 3 Pipeline Installation University Mound Reservoir - North Basin Groundwater Projects Recycled Water Project
Miscellaneous Projects	SF Bay Desalination Program Environmental Impact Report Watershed and Environmental Improvement Program

### San Francisco Projects

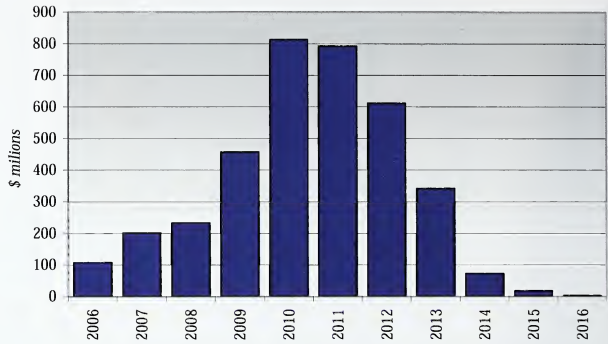
SF Local Program	Projects
Reservoirs	Summit Reservoir Rehabilitation New Northwest Reservoir Hunters Point Reservoir Rehab & Seismic Upgrade Stanford Heights Reservoir Rehabilitation Potrero Heights Reservoir Rehabilitation Sutro Reservoir Rehab & Seismic Upgrade
Pump Station / Tanks	Crocker Amazon Pump Station Upgrades Lake Merced Pump Station Essential Upgrade La Grande Tank Seismic Upgrade Forest Hill Tank Rehab & Seismic Upgrade Forest Hill Pump Station Upgrades Forest Knolls Pump Station Upgrades Forest Knolls Pump Station Upgrades McLaren Park Pump Station Upgrades Mount Davidson Pump Station Upgrades Palo Alto Pump Station Upgrades Sky View - Aqua Vista Pump Station Upgrades Summit Pump Station Upgrades McLaren #1 Tank Rehab & Seismic Upgrade Potrero Heights Tank Seismic Upgrade Forest Knolls Tank Seismic Upgrade Lincoln Park Tank Seismic Upgrade McLaren #2 Tank Rehab & Seismic Upgrade Mount Davidson Tank Seismic Upgrade La Grande Pump Station Upgrades Potrero Heights Pump Station Upgrades Vista Francisco Pump Station Upgrades
Pipeline / Valves	North University Mound System Upgrade Key Motorized and Other Critical Valves Sunset Circulation Improvements Lincoln Way Transmission Line Noe Valley Transmission Main, Phase 2 East / West Transmission Main Fulton @ Sixth Ave - 30" Main Replacement
Miscellaneous Projects	Vehicle Service Facility Equipment Safety Upgrade Fire Protection @ CDD

### C. WSIP Facility Capital Funding Summary

The ten-year capital plan includes total estimated project costs for the Water System Improvement Program of \$3.54 billion between FY2007 and FY2016. Estimated capital investments over the ten-year period are presented by regional and local needs.

As shown in the graph below and the table that follows, estimated spending will grow over the next several years and will more than double between FY2007 and FY2009 from \$201.3 million to \$457.5 million. Estimated expenditures will peak in FY2010 at an estimated \$813.7 million. The projected expenditures will be financed with water revenue bonds.

**WSIP Projected Expenditures**  
**Fiscal Years 2006 - 2016**



# PUC Water System Improvement Program (WSIP)

Program/Project	FY2006 Cost Estimate	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 - FY2016	PLAN TOTAL
<b>Costs</b>								
Regional Program	3,221,607,684	138,655,934	169,630,340	402,285,892	737,841,015	759,491,022	1,013,500,481	3,221,607,684
San Francisco Local Program	325,080,649	62,513,552	63,733,182	55,223,349	75,918,435	33,066,056	34,625,273	325,080,649
<b>WSIP Total <sup>1</sup></b>	<b>3,546,688,333</b>	<b>201,372,486</b>	<b>233,363,522</b>	<b>457,509,241</b>	<b>813,759,450</b>	<b>792,557,880</b>	<b>1,048,125,754</b>	<b>3,546,688,333</b>
<b>Revenues</b>								
Federal	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0
CCSF GO Bond/COPS	0	0	0	0	0	0	0	0
Revenue Bonds <sup>2</sup>	3,546,688,333	201,372,486	233,363,522	457,509,241	813,759,450	792,557,880	1,048,125,754	3,546,688,333
Other	0	0	0	0	0	0	0	0
<b>Revenues Total</b>	<b>3,546,688,333</b>	<b>201,372,486</b>	<b>233,363,522</b>	<b>457,509,241</b>	<b>813,759,450</b>	<b>792,557,880</b>	<b>1,048,125,754</b>	<b>3,546,688,333</b>

## Shortfall

To be funded with debt, additional revenues, and/or deferring expenditures

## Notes

<sup>1</sup> Total reflects project costs and excludes financing costs.

<sup>2</sup> Presentation is on a fiscal year basis. Does not represent actual schedule for debt issuance. Excludes financing costs.

## **D. Public Utilities Commission—Water Enterprise Facilities**

### **A. Water Enterprise Facility Highlights**

The Water Enterprise (WE) of the San Francisco Public Utilities Commission is responsible for the operation, maintenance, capital improvements and repair/replacement of both local and regional facilities and assets. These include the following:

- Three Yards
- 30 Chemical Stations (chlorination stations, aeration facilities, fluoride station, alum treatment plant and Thomas Shaft).
- 24 Pipelines or related facilities
- 26 Pump Stations
- 29 Dams and Reservoirs
- 9 Tanks
- 11 Tunnels
- 28 Valve Lots
- Two Water Treatment Plants

See the maps on under the Water System Improvement Program for the location of the major facilities.

#### **1. Renewal / Good Repair Program**

The Water Enterprise Repair and Replacement (R&R) Program's recent historic annual funding is \$20 million to \$25 million. The proposed R&R Program includes projects that are needed for on-going maintenance and to keep the water systems operational with the goal of reaching a state of good repair. The ten-year capital plan includes R&R projects such as:

- **Transmission Lines and Bypass Valve Program.** This program is a multi-year program to repair or replace several existing transmission main lines and bypass valves that are nearing the end of their life.

- **Prestressed Concrete Cyclinder Pipe Replacement Program.** This program will replace approximately 30 miles of pipeline. Breaks in this type of pipe have catastrophic impact on the ability to deliver water.
- **Watershed and Facilities Fence Construction Program.** This is an on-going program to construct or reconstruct two to five miles of fencing annually (of approximately 1,000 miles of total fencing). The fencing protects watershed lands, right-of-ways, and water system facilities from vandalism, trespassing, or encroachments. The fencing will also preserve water quality by protecting watershed riparian zones and restricting cattle access to water bodies.
- **Meter Replacement, Distribution Main Replacement, New Services and Meters, Water Main Extensions.**

## 2. Enhancement / Improvement Program (FY2007 – FY2016)

The Ten Year Capital Plan proposes investments in addition to R&R spending of approximately \$300 million. A majority of this investment will be expended on enhancement/improvement projects such as:

- **San Antonio Reservoir Hypolimnetic Oxygenation System:** Construction of this facility will allow oxygen to be distributed to the reservoir, providing multiple beneficial water quality enhancements. Nutrient loading to the water column will be limited, reducing algal blooms and associated taste and odor problems in treated water. The need to use the pesticide copper sulfate to kill nuisance algae will be significantly reduced. Water treatment plant chemical costs will also be reduced. Lastly a cold-water oxygenated refuge will be provided for resident rainbow trout. These fish are considered by some to be a remnant Steelhead trout population and may be used as seed stock to repopulate the lower watershed when barriers to migration to San Francisco Bay are removed. If funding for the project is available, final installation and testing of the facility could be completed by winter of 2007/08.
- **Sunol Quarries:** Managing mining in Sunol Valley now – and planning for the phased take over of the Sunol Quarries following completion of mining – will maximize our ability to utilize the quarries for water supply and recreation purposes in the future. Analysis will identify appropriate slope gradients for water storage and human use, pipelines needed to move water out of quarries for potential treatment, and appropriate recreational enhancements.
- **Cathodic Protection Plan for Steel Transmission Lines in San Francisco:** CDD is embarking on a Cathodic Protection Plan for steel transmission mains (20" and larger) in the City. This is a new program that will enhance the life of our transmission lines by severely reducing the corrosion effect on these lines. By extending the life of these lines,

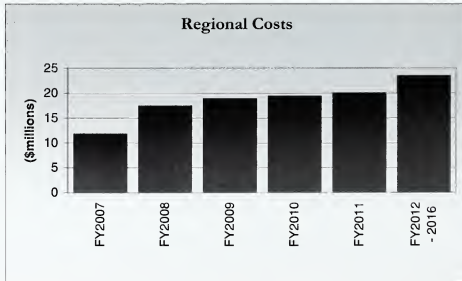
significant cost savings will be achieved. The cost of this program is estimated at \$400,000 per mile compared to replacement cost of \$5,000,000 per mile, with much less impact on our streets and neighborhoods.

### C. Water Enterprise Facility Capital Funding Summary

The ten-year capital plan includes total estimated project costs for the Water Enterprise of \$522.4 million between FY2007 and FY2016. Estimated capital investments over the ten-year period are presented by regional and local needs.

<b>Regional</b>	(millions)
Communications/Security/Misc	~\$11.5
Storage	~\$42.5
Treatment Facilities	~\$32.5
Water Conveyance/Transmission System	~\$52.5
Watershed (Roads/Right of Way)	~\$66.4
<b>Total</b>	<b>~\$205.5</b>
<b>Local</b>	
Water Conveyance /Distribution System	~\$276.8
Communications/Security/Misc	~\$40.0
<b>Total</b>	<b>~\$316.9</b>

As shown in the graph below and the table that follows, under this ten-year capital plan spending will grow over the next several years and will nearly double between FY2007 and FY2009 from \$30.9 million to \$55.3 million which is also the projected peak for total costs. The ten-year plan identifies capital investment needs that will be financed with a combination of existing water revenue bonds and/or additional revenues. If revenues are not available, projects will be deferred.



*Note: Average Annual Costs are used for FY2012 – 2016*



*Note: Average Annual Costs are used for FY2012 – 2016*

# PUC Water Enterprise

Program/Project	FY2006 Cost Estimate	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 - FY2016	PLAN TOTAL
<b>Regional Costs</b>								
Communications/Security/Miscellaneous	11,500,000	500,000	2,000,000	2,000,000	2,000,000	2,000,000	3,000,000	11,500,000
Storage	42,465,000	500,000	2,000,000	3,000,000	3,120,000	3,245,000	30,600,000	42,465,000
Treatment Facilities	32,500,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	17,500,000	32,500,000
Water Conveyance/Transmission System	52,523,000	4,900,000	4,500,000	4,680,000	4,867,000	5,082,000	28,514,000	52,523,000
Watershed (Roads/Right of Way)	66,497,000	3,000,000	6,000,000	6,240,000	6,490,000	6,749,000	38,018,000	66,497,000
<b>Regional Total <sup>1</sup></b>	<b>205,485,000</b>	<b>11,900,000</b>	<b>17,500,000</b>	<b>18,920,000</b>	<b>19,477,000</b>	<b>20,056,000</b>	<b>117,632,000</b>	<b>205,485,000</b>
<b>Local Costs</b>								
Water Conveyance /Distribution System	276,889,000	18,000,000	19,667,000	21,488,000	23,478,000	25,652,000	168,604,000	276,889,000
Pump Stations	0	0	0	0	0	0	0	0
Storage	0	0	0	0	0	0	0	0
Communications/Security/Miscellaneous	40,000,000	0	15,000,000	15,000,000	2,000,000	2,000,000	6,000,000	40,000,000
<b>Local Total <sup>1</sup></b>	<b>316,889,000</b>	<b>18,000,000</b>	<b>34,667,000</b>	<b>36,488,000</b>	<b>25,478,000</b>	<b>27,652,000</b>	<b>174,604,000</b>	<b>316,889,000</b>
<b>Revenues</b>								
Federal	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0
Revenue Bonds <sup>2</sup>	9,000,000	9,000,000	0	0	0	0	0	9,000,000
Revenue	275,455,847	21,900,000	22,995,000	24,144,750	25,351,988	26,619,587	154,444,522	275,455,847
Other	0	0	0	0	0	0	0	0
<b>Revenues Total</b>	<b>284,455,847</b>	<b>30,900,000</b>	<b>22,995,000</b>	<b>24,144,750</b>	<b>25,351,988</b>	<b>26,619,587</b>	<b>154,444,522</b>	<b>284,455,847</b>
<b>Shortfall</b>	<b>(237,918,153)</b>	<b>1,000,000</b>	<b>(29,172,000)</b>	<b>(31,263,250)</b>	<b>(19,603,012)</b>	<b>(21,088,413)</b>	<b>(137,791,478)</b>	<b>(237,918,153)</b>

To be funded with debt, additional revenues, and/or deferring expenditures

## Notes

<sup>1</sup> Total reflects project costs and excludes financing costs.

<sup>2</sup> Presentation is on a fiscal year basis. Does not represent actual schedule for debt issuance. Excludes financing costs.



## D. Public Utilities Commission—Wastewater Enterprise Facilities



## D. Public Utilities Commission—Wastewater Enterprise Facilities

The Wastewater Enterprise (WWE) is responsible for the operation, maintenance, capital improvements and repair/replacement of following wastewater facilities and assets.

- Southeast WPCP
- Bruce Flynn PS
- Oceanside WPCP
- Westside PS
- Zoo WWLS
- North Point WWF & North Shore PS
- Channel PS & Transport
- Southeast Booster PS
- Griffith PS
- Hudson Avenue PS
- Mariposa PS & Transport
- Palace of Fine Arts PS
- Pine Lake PS
- Sea Cliff #1 PS
- Sea Cliff #2 PS
- Tennessee PS
- 20th Street PS
- Merlin/Morris PS
- Chavez/Army Circle LS
- Geary Expressway LS
- Sunnydale PS & Transport
- Rankin WWLS
- Richmond Chemical Station
- Berry PS
- Richmond Transport
- North Shore Transport
- Islais Creek Transport
- Westside Transport
- Marina Transport
- Jackson Transport
- Yosemite Transport
- Hunters Point Transport
- 900 Miles of Sewers
- 3 Ocean/Bay Outfalls
- 36 Overflow Structures
- Southeast Community Facility

## **A. Wastewater Enterprise Highlights**

The WWE has been meeting all current treatment standards and regulatory permit requirements for the wastewater treatment, effluent discharge, and bio-solids disposal. The Oceanside Treatment Facility has received numerous national level awards for "Best" treatment performance. The WWE has been implementing a repair and replacement program with a current annual budget of approximately \$17 million.

Significant investments, however, are still required to ensure:

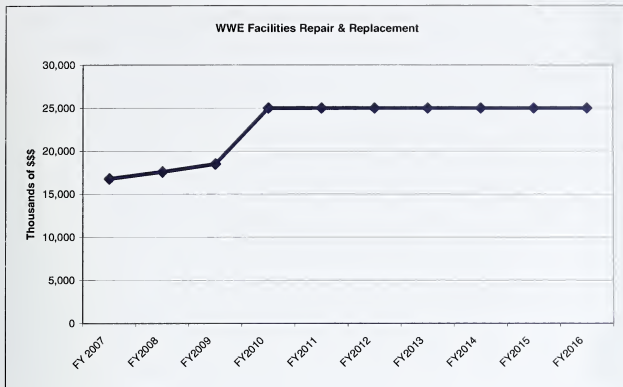
- Public health and safety
- Ability to meet customer needs (level of service?)
- Reliability of Infrastructure
- Increase storm water collection and controls of odors
- Meet future regulatory requirements
- Environmental Justice

In addition WWE started following major activities in 2005:

- North Point Wet weather Facility Upgrade (\$30M)
- Wastewater Master Planning for next 30 Years (\$21M for planning)
- 5-Year CIP to address Flooding, Aging Infrastructure, and Odors (\$150M)

### **1. Renewal / Good Repair Program**

The recommended renewal is estimated to cost \$227 million over the ten-year plan cycle. This program includes two major categories: treatment facilities (\$86.9 Mil) and sewer replacements (\$141 Mil). The WWE has been replacing approximately 5-6 miles of sewers at an annual cost of approximately \$11 Million. Currently, the sewer replacement cycle is approximately 200 years. WWE's goal is to accelerate the sewer replacement rate until the sewers are replaced at a target cycle of 100 years. The treatment plant renewal program (currently at \$5M annually) includes critical equipment replacements based on the needs assessment by Operations and Maintenance. The proposed plan will allow the enterprise to maintain the facilities in good operating conditions. The total renewal program funding is projected to increase to \$25M beginning in FY 2009.



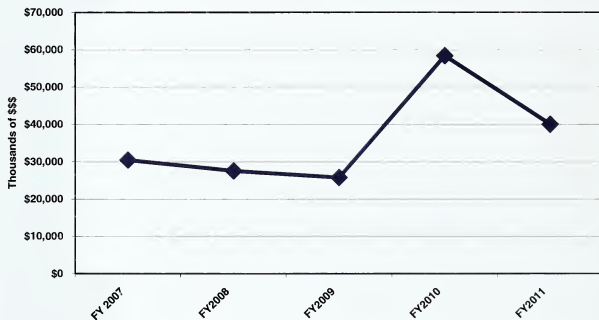
## 2. Enhancement / Improvement Program (FY2007 – FY2011)

The first half of the 10-Year plan proposes the investment of \$338 Million. The scope of the capital investments in the next five years are divided amongst two groups of projects: (1) Sewer Improvement projects to expand the ability of the system to collect and convey wastewater, and (2) Aging Infrastructure and Odor Control to replace/repair old structures and maximize control of odors. The following table details some of the projects and the costs associated with each project.

Projects	(\$millions)
Vicente St. Sewer Improvement, Phase II	\$4.7
Teresita Blvd "South" Sewer Replacement	\$2.6
Shotwell & 18th Streets Sewer Drainage Improvements	\$6.4
Sunnydale Auxiliary Sewer	\$25.5
Brotherhood Way Sewer Improvement	\$2.0
Cesar Chavez Sewer Improvements, Phase I	\$8.0
Mission & Mt. Vernon Sewer Improvements Phase I	\$11.4
Cayuga North Sewer Improvements, Phase II	\$3.3
Ocean Ave Sewer Improvement	\$1.4
Alemaný & Sickles Sewer Improvements	\$2.5
Justin Street Sewer Improvement	\$0.9
Toland, Hudson & Phelps Sewer Improvements	\$2.2
Staples/Hazelwood/Montecito Sewer Improvement	\$4.0
SEP Secondary Clarifiers Concrete Repairs	\$3.0
SEP Solids and Gas Handling Improvements	\$13.0
SWOO Cleaning & Backflow Prevention	\$2.0
Oceanside WPCP HVAC Improvements	\$3.3
OSP Digester Mixing Improvements	\$3.0
Major Electrical and Mech. Equipment Replacement	\$ 8.2
Contract 1 - SEP Aeration Basin	\$4.2

Projects (continued)	(\$millions)
Contract 2 - WS PS VFDs and Pumps	\$1.8
Contract 3 - OSP/WS PS Bar Screens	\$2.5
Contract 4 - OSP Gas Compressors	\$0.3
SEP MLSS, Center Wells, RAS, Launderers Odor Control	\$7.5
SEP 010 Receiving Station and Lift Station Odor Control	\$5.0
Channel PS Odor Control	\$5.0
Embarcadero Vent Elements - Phase 1	\$0.6
Embarcadero Vent Elements - Phase 2	\$0.9
Embarcadero Box Hydraulic Modifications	\$3.0
Chemical Feed Systems - Phase 1	\$0.5
Chemical Feed Systems - Phase 2	\$2.5
Tennessee Pump Station Reliability - Phase 1	\$1.6
Tennessee PS Sewer Improvement - Phase 2	\$1.6
North Point Facility Improvements	\$3.0
Master Plan Odor Control	\$20.0
Master Plan Treatment Facilities	\$20.0
Master Plan Pump Stations	\$10.0
Assessment/Yosemite Creek	\$4.0
Master Plan Miscellaneous	\$10.0
Master Plan Sewers	\$40.0

WWE Enhancement Program (FY2007-FY2011)



### **3. Enhancement / Improvement Program (FY20012 – FY2016)**

The second half of the ten-year Plan proposes the investment of \$835 million and will focus on projects from the Wastewater Master Plan. The project categories will be similar to the first half of the Plan:

- Odor Control
- Treatment Facilities
- Pump Stations
- Miscellaneous (Outfall etc.)
- Sewers

The Wastewater Master Plan will encompass all capital and emerging needs for the next 30 years. Therefore, deferment of projects is not anticipated. The increased capital investments will be financed with a combination of revenue bonds and/or additional revenues. If revenues are not available, projects will be deferred.

### **C. Water Enterprise Facility Capital Funding Summary**

The ten-year capital plan includes total estimated capital investments for Hetchy Power of \$1.49 billion. The estimated capital investments are in the following functional project categories:

- Master Plan (~\$9 Mil)
- Odor Control (~\$100 Mil)
- Treatment Facilities (~\$500 Mil)
- Pump Stations (~\$75 Mil)
- Sewer System (~\$450 Mil)

# PUC Wastewater Enterprise

Program/Project	FY2006 Cost Estimate	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 - FY2016	PLAN TOTAL
<b>Costs</b>								
Wastewater Master Planning	9,220,000	4,800,000	3,370,000	1,250,000	0	0	0	9,220,000
Odor Control	93,250,000	3,500,000	10,450,000	7,500,000	11,800,000	10,000,000	50,000,000	93,250,000
Treatment Facilities	492,695,000	15,100,000	10,670,000	9,225,000	27,700,000	20,000,000	410,000,000	492,695,000
Pump Stations	72,010,000	3,375,000	5,510,000	2,125,000	6,000,000	5,000,000	50,000,000	72,010,000
Miscellaneous	62,000,000	0	270,000	1,730,000	5,000,000	5,000,000	50,000,000	62,000,000
Sewer/Collection System	443,399,000	28,779,000	28,720,000	31,200,000	44,700,000	35,000,000	275,000,000	443,399,000
<b>Wastewater Total<sup>1</sup></b>	<b>1,172,574,000</b>	<b>55,354,000</b>	<b>59,990,000</b>	<b>53,030,000</b>	<b>95,200,000</b>	<b>75,000,000</b>	<b>835,000,000</b>	<b>1,172,574,000</b>
<b>Revenues</b>								
Federal	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0
Revenue Bonds - 5-yr CIP <sup>2</sup>	134,695,000	38,575,000	41,390,000	34,530,000	20,200,000	0	0	134,695,000
Revenue Bonds - Master Plan <sup>2</sup>	810,000,000	0	0	0	50,000,000	50,000,000	710,000,000	810,000,000
Revenue	227,879,000	16,779,000	17,600,000	18,500,000	25,000,000	25,000,000	125,000,000	227,879,000
Other	0	0	0	0	0	0	0	0
<b>Revenues Total</b>	<b>1,172,574,000</b>	<b>55,354,000</b>	<b>59,990,000</b>	<b>53,030,000</b>	<b>95,200,000</b>	<b>75,000,000</b>	<b>835,000,000</b>	<b>1,172,574,000</b>

## Shortfall

To be funded with debt, additional revenues, and/or deferring expenditures

0	0	0	0	0	0	0	0	0
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## Notes

<sup>1</sup> Total reflects project costs and excludes financing costs.

<sup>2</sup> Presentation is on a fiscal year basis. Does not represent actual schedule for debt issuance. Excludes financing costs.

## **D. Public Utilities Commission—Hetch Hetchy Water and Power**

### **A. Hetchy Power (Power Enterprise)**

The core business of the Hetchy Power Enterprise is to provide adequate and reliable supplies of electric power to meet the electricity needs of the City and County of San Francisco's customers. In addition, it must satisfy the municipal loads and agricultural pumping demands of the Modesto and Turlock Irrigation districts consistent with prescribed contractual obligations and federal law.

#### **1. Streetlighting**

There are approximately 42,000 streetlights located within the City. The Power Enterprise provides power to all 42,000 streetlights, maintains approximately 22,000 streetlights owned by the City, and coordinates the maintenance of approximately 20,000 streetlights owned by Pacific Gas & Electric (PG&E). Details on capital costs for streetlighting include:

- Operations and maintenance (O&M) work, including responding to outages, replacing damaged poles and conduits, and responding to public complaints. We estimate that \$4 million will be spent on streetlighting O&M during the 10-year period.
- The Power Enterprise also undertakes planning and design reviews for street systems with the Department of Public Works (DPW). We estimate \$95,000 will be spent in this streetlighting program area.
- The Enterprise is in the process of performing an assessment of the existing streetlight system, particularly City-owned facilities over sixty years old, and preparing a retrofit/replacement program that will include specific recommendations, strategies for capital recovery, and an implementation schedule. These assessments and resulting construction are estimated to cost \$52 million over the 10-year period.

#### **2. Redevelopment**

On October 1, 1997, concurrent with the operational closure of Naval Station Treasure Island, the City entered into a Cooperative Agreement (CA) with the Navy, with approval from the Board of Supervisors, in which the City, acting through Treasure Island Development Authority, agreed to take responsibility for caretaker services on Treasure Island ("TI") and Yerba Buena Island ("YBI").

Since the signing of the CA in 1997, the SFPUC has been providing utility operation and maintenance (O&M) services at TI/YBI as a contractor to TIDA and the Navy. The O&M services include utility system operation, monitoring, maintenance, improvements, repairs, regulatory compliance, and billing and collection, as pursuant to the CA.

The services apply to the potable water, steam, wastewater, storm water, electrical and natural gas utility systems. The Navy established the utility rates in 1997 when the CA was signed and remain unchanged to date. According to the terms and conditions of the CA, revenues collected from utility sales must be used to balance all O&M costs.

The conveyance of TI/YBI, including utilities and facilities serving and located outside of TI/YBI from the Navy to the City has been expected since 2005. Based on the overall preliminary development schedule for TI/YBI, it is anticipated that the existing utility systems will be replaced in phases within 3 to 10 years after conveyance of the property. This new development presents an opportunity for the City to shape a new electric utility for TI/YBI. Capital costs over the ten-year period include:

- Electrical services – SFPUC staff has developed a work plan for creating a public power utility on TI and YBI. The electric redevelopment projects from that work plan, together with safety and lighting improvements total \$24 million.
- Water services – The construction of the new Bay Bridge presents the need and the opportunity to move and reconstruct certain water lines that serve TI/YBI at an estimated cost of \$5.5 million.
- Water renewal and replacement – Continuing reliable, high quality water services in compliance with regulations requires an estimated \$5.3 million in capital improvements.
- Wastewater services – The construction of the new Bay Bridge presents the need and the opportunity to move and reconstruct certain wastewater lines that serve TI/YBI at an estimated cost of \$6 million.
- Wastewater renewal and replacement – Continuing reliable, high quality wastewater services in compliance with regulations requires an estimated \$2.9 million in capital improvements.

### **3. Transmission and Distribution**

Transmission and distribution ("T&D") projects are defined as 12 kV service voltage and higher. These projects address the SFPUC's ability to assess and develop City-owned transmission and distribution assets as well as evaluate its reliance on assets owned by a third party. T&D system projects support the SFPUC's responsibility to provide long-term electric reliability options and service for the City. This, in part, requires the assessment of feasible, long-term strategies and systems to manage both City-owned and third party generation over third party distribution system or systems developed, constructed and owned by the City. Ten-year capital estimates include:

- Condition assessment of the existing third party T&D systems is a critical component in the evaluation of an expanded SFPUC role beyond serving only municipal load, including Public Power and Community Choice Aggregation options. T&D condition assessments and ultimate construction are estimated to cost \$880 million.
- Constructing and owning new T&D systems where power can be taken at a higher or primary service voltage and then stepped down to a lower or secondary service voltage results in reduced project costs as well as reduced long term operating costs because higher voltage power is less expensive while purchasing and maintaining T&D equipment is typically more cost efficient than paying an Investor Owned Utility (IOU) on the City's larger systems based on CPUC tariffs and rules. These new systems are estimated to cost \$2.7 million.
- Keeping our existing systems in a good state of repair is critical to ensuring reliable electric service to City customers. T&D renewal and repair program efforts over the 10-year period are estimated to cost \$3.7 million.

### **4. Generation**

In order to deliver electricity as a commodity to its customers, the Power Enterprise relies on its power purchases from the Hetch Hetchy hydroelectric powerhouses as well as its Calpine contract and third party purchases.

The Power Enterprise is continuously researching and developing new electricity generation resources to provide clean, local generation where it is needed, ensuring reliable power services.

The Power Enterprise is committed to implementing renewable energy in municipal facilities, in accordance with expressed policy by the Board of Supervisors and voters. The scale of this commitment is a key determinant of the Power Enterprise's future capital requirements, and is dependent upon sufficient net revenues. These projects are estimated to cost \$298 million over the 10-year period.

The Power Enterprise is developing two new combustion turbine power plants in support of adopted policies for strengthening local electric reliability while facilitating closure of old polluting local power plants, environmental justice and air quality improvement in the southeast communities. This project is estimated to cost \$202 million with construction anticipated in FY 08-09.

#### **5. Energy Efficiency**

Energy efficiency expenditures and investments are an important element of an electric utility's resource portfolio. Energy efficiency reduces facility-operating costs and thereby electric bills for customers, often improves system functionality, and reduces the environmental impact of energy use.

The Power Enterprise manages four (4) Energy Efficiency programs totaling \$71.6 million.

With \$37.6 million in expenditures anticipated over the next 10 years, the Clean Energy, Clean Air program is the largest energy efficiency capital program.

- The Citywide Program is the second largest program with an anticipated cost of \$14.25 million through FY 15-16.
- Energy Efficiency Retrofits is the third program with an anticipated 10-year capital program cost of \$9.356 million.
- The Energy Program Development area anticipates the energy needs of special projects such as the development of Treasure Island, and is estimated to cost about \$3 million over the 10-year period.

#### **6. Hetch Hetchy Power Capital Funding Summary**

The ten-year capital plan includes total estimated project costs for the Wastewater Enterprise of \$1.17 billion between FY2007 and FY2016. Estimated capital investments over the ten-year period are presented in the following areas:

Hetchy Power's proposed ten-year capital plan includes investments of \$1.49 billion in the following functional project categories:

Streetlighting	~\$56.9 Million
Redevelopment	~\$43.9 Million
Transmission/Distribution	~\$829.1 Million
Generation	~\$500.3 Million
Energy Efficiency	~\$64.0 Million
<b>Total</b>	<b>~\$1,494.2 Million</b>

The capital investments will be financed with a combination of revenue bonds and/or additional revenues. If revenues are not available, projects will be deferred.

## **B. Hetchy Water and Wholesale Power**

Hetchy Water operates the Hetch Hetchy Reservoir, the main source of water for the Hetch Hetchy system. In addition, Hetchy Water is responsible for the operation, maintenance, capital improvements and repair/replacement of smaller dams and reservoirs, water transmission systems, power generation facilities and power transmission assets, including transmission lines to the Newark substation.

### **1. Communications/Security/Miscellaneous**

Estimated capital investment needs for Communications/Security/Miscellaneous are anticipated to cost approximately \$20 million over the next ten years. Projects include SCADA (a remote monitoring and operating system), communications, radio, security and other modeling tools to assist in operations of the water and power systems. One project currently planned is to replace the current SCADA system. Hetchy Water's SCADA system is out of date and does not meet the needs of the Hetchy Water.

The capital plan also includes developing a new microwave communication system by 2009. As a backup communication system to microwave, Hetchy Water is going with a multi-fiber communication link from Moccasin to the Powerhouses and Switchyard at Intake. Due to the critical communication needs at these remote powerhouses for security, this redundant communication link is included in the ten-year plan.

### **2. Reservoirs/Dams**

Capital investments in Reservoirs/Dams are anticipated to cost about \$50 million over the next ten years. Projects include work at Cherry, Eleanor, Hetch Hetchy reservoirs and dams and also at the City's regulating reservoirs including Moccasin, Priest and Early Intake. Some projects include:

- **O'Shaughnessy Dam:** There are several maintenance activities to be funded by this project. Improvements are needed for the isolation of the water from the lower discharge points at the dam into the Canyon tunnel. This project would fund the design and installation of a new isolation valve on the main discharge pipe coming from the reservoir through the diversion tunnel at the base of the dam. Other maintenance improvements needed at the dam are the repair or replacement of the existing system of discharge valves and isolation gates in the dam. Some of the original equipment dating from the 1920's is in need of renovation or replacement. The existing flood control drum gates on the dam are in need of a major renovation including coating and significant structural improvements. These improvements will ensure continued safe and effective operation well into the future.
  
- **Early Intake Dam:** DSOD inspections have identified several areas of potential concern, primarily with reactive concrete used in construction of the Early Intake dam, which is over 80 years old. This project will address DSOD concerns and rehabilitate dam integrity to current DSOD standards.
  
- **Cherry Reservoir Improvements:** This is a multi-year project that would fund general maintenance and improvements to the dam, spillway, roadways, valve house, valves and operators, and other appurtenances associated with Cherry Reservoir.
  
- **Eleanor Dam:** The road surface of the dam has deteriorated excessively due to periodic events of exceptionally high inflows. This project will allow resurfacing of the top of the dam as well as improvements to the capacities of the release valves. Increased release capacities will allow greater regulating control of this reservoir, ultimately reducing the number of events when the dam is overtopped.
  
- **Moccasin Reservoir Gate Tower:** Moccasin Gate Tower 1,2, and 3 are 80 years old and in need of being seismically upgraded. In addition to seismic upgrade these funds would also be used to improve bird sprinkler systems to improve water quality in the reservoir.

### 3. Water Transmission

Capital investments in Water Transmission are anticipated to cost over \$260 million over the next ten years. Projects include work on the San Joaquin Pipelines, Mountain Tunnel, Foothill Tunnel and Coast Range Tunnel. Cost estimates for work at Coast Range Tunnel have not been computed as of this date. Projects include:

- **Mountain Tunnel:** Mountain tunnel has been in-service continually for 80 years with only minimal maintenance work performed over that time. Recent inspections have shown that there is much repair work to be done on over 9 miles of lined sections of tunnel. It is anticipated that the rehabilitation program will be performed over a 20-year period.
- **Foothill Tunnel:** As with other components of the water conveyance system the Foothill Tunnel is almost 80 years old and has been in service continually with only minimal maintenance work performed over that time. Over eight miles of the tunnel is lined and it is now reaching a point where significant rehabilitation is necessary to ensure reliability and continued operation without unplanned disruption.
- **San Joaquin Pipelines:** The San Joaquin Pipelines 1,2,and 3 built in 1932, 1953, and 1968 transport 85% of the water used by San Francisco and other Bay Area Communities. This funding over the next 10 years would allow needed rehabilitation in the form of linings, coatings, joint repair and replacement as needed. It is anticipated that the rehabilitation program will be performed over a 20-year period.
- **Lower Cherry Aqueduct:** The LCA is the conduit, which potentially enables conveyance of water from Cherry Impound Reservoir to Early Intake Reservoir. The objective of this project is to improve the diversion dam outlet structure, rehabilitate and enclose the open canal portion of LCA, rehabilitate 0.86 miles of pipe and increase capacity to 118 MGD.
- **Granite Portal/HPH Penstock:** Granite Portal and the HPH penstock are over 45 years old. The interior lining is still original; funds from this project would pay for both interior and exterior lining and rehabilitation.

#### 4. Buildings/Roads/ROW

Capital investments in Buildings/Roads/Right-of-Way (ROW) are anticipated to cost over \$50 million over the next ten years. Projects include:

- **Facilities/Roads/Buildings/ROW:** This is a multi-year project to fund major improvements and maintenance activities involved with the support infrastructure required for the operation and maintenance of both the water delivery and power generation/ transmission system portion of the Hetch Hetchy Project. This project will fund a number of specific projects involving shared support infrastructure throughout the project.
- **Facilities maintenance-support structures:** This project will fund the maintenance projects and rebuilding of existing support structures and facilities on the project. Projects to include major structural renovations and upgrades, lead paint abatement, re-roofing, interior remodels, upgrading and remodeling craft work areas and shops, etc.
- **Emergency Operations Center – Moccasin Campus:** This project would fund the redesign, seismic upgrade and renovation of the old Moccasin Powerhouse. The intent is for this building to serve as the Emergency Operation Center for up-country operations and will consist of office and meeting space for Project Operations Administration, Maintenance Engineering, Water Quality and Energy Services staff. In addition, the renovation would include a new control room for the Moccasin Powerhouse. The existing controls dates back to 1969 and it does not offer enough or the correct layout, personal comfort, or provide adequate security for such an important 24-hour/day function.
- **Right-of-Way Issues:** The purpose of this project is to provide vegetation management along the water and power ROWs and watershed areas. Uncontrolled vegetation encroachment along the power ROW produces substantial fire risk and potential related liabilities. In addition to fire avoidance, a comprehensive vegetation management program for the Priest and Moccasin watersheds also aids in meeting water quality objectives. Funding for this project supports the annual summer Watershed Worker program, the CDF Baseline crew program, and the goat grazing program as well as ongoing maintenance to ROW access roads.

## 5. Power

Capital investments in Power are anticipated to cost over \$70 million over the next ten years. Projects include:

- **Exciters:** Each unit's exciter controls the electric outputs of the hydro generators at Hetch Hetchy. The exciter controls the voltage and power output from each generating unit. This project would replace as required the existing exciters on the different units system wide. The availability and reliability of the generating units will be increased with the replacements.
- **Governors:** This project provides for the removal and replacement of existing aging mechanical governors with new digital, PLC controlled system. The hydro governors control the speed of the unit during start-up and control the opening of the gates and needles which control the output of the turbines that power the generators. New governors would allow for more efficient use of the available water by means of increased turbine efficiency and higher unit availability.
- **Changing OCBs to SF6:** This project provides for the replace of the transmission line oil circuit breakers (OCB) with modern units. Removal of system oil circuit breakers and replace with SF6 equipment would improve transmission system reliability and reduce long-term maintenance. The project would replace all OCB breakers located at Warnerville, Moccasin, and Early Intake ( 24 total) The project would phase in each facility.
- **Transformers:** This project would replace aging transformers throughout the generating and transmission system. Due to age and degradation of internal insulation, replacement is needed for reliability and safety.
- **Transmission/Distribution:** Hetch Hetchy Water and Power maintains several long transmission, distribution and switchyards as part of the high voltage electrical system. This project would provide for the maintenance and modernization of these existing electric transmission and distribution systems.

## C. Hetchy Water and Power Capital Funding Summary

Hetchy Water's proposed ten-year capital plan includes investments of \$462.6 million in the following project categories:

Communications/Security	~\$21.3 Million
Reservoirs/Dams	~\$54.2 Million
Water Transmission	~\$260.7 Million
Buildings/Roads/ROW	~\$54.3 Million
Power	~\$72.1 Million
<b>Total</b>	<b>~\$462.6 Million</b>

The capital investments will be financed with a combination of revenue bonds and/or additional revenues. If revenues are not available, projects will be deferred.

# PUC Hetch Hetchy Water and Power

Program/Project Costs	FY2006 Cost Estimate	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 - FY2016	PLAN TOTAL
<b>Hetchy Power</b>								
Streightlight	56,952,615	5,568,615	5,434,000	28,039,000	16,831,000	270,000	810,000	56,952,615
Redevelopment	43,887,000	0	3,352,000	28,220,000	8,415,000	3,600,000	300,000	43,887,000
Transmission/Distribution	829,050,000	1,950,000	7,415,000	23,235,000	13,250,000	28,990,000	754,210,000	829,050,000
Generation	500,276,200	21,627,000	200,932,700	13,922,100	152,381,500	57,554,000	53,658,900	500,276,200
Energy Efficiency	64,015,000	3,790,000	12,450,000	14,315,000	5,285,000	5,250,000	22,825,000	64,015,000
<b>Hetchy Power Total <sup>1</sup></b>	<b>1,494,180,815</b>	<b>32,935,615</b>	<b>229,583,700</b>	<b>107,731,100</b>	<b>196,162,500</b>	<b>95,664,000</b>	<b>832,103,900</b>	<b>1,494,180,815</b>
<b>Hetchy Water</b>								
Communications/Security/Miscellaneous	21,300,000	0	6,650,000	4,700,000	2,500,000	2,500,000	4,950,000	21,300,000
Reservoirs/Dams	54,150,000	0	13,000,000	13,000,000	13,650,000	2,000,000	12,500,000	54,150,000
Water Transmission	260,700,000	5,000,000	17,300,000	29,700,000	34,000,000	34,500,000	140,200,000	260,700,000
Buildings/Roads/ROW	54,300,000	5,300,000	12,000,000	12,000,000	5,000,000	5,000,000	15,000,000	54,300,000
Power	72,105,000	3,355,000	12,050,000	9,000,000	9,100,000	10,100,000	28,500,000	72,105,000
<b>Hetchy Water Total <sup>1</sup></b>	<b>462,555,000</b>	<b>13,655,000</b>	<b>61,000,000</b>	<b>68,400,000</b>	<b>64,250,000</b>	<b>54,100,000</b>	<b>201,150,000</b>	<b>462,555,000</b>
<b>Hetchy Enterprise Total <sup>1</sup></b>	<b>1,956,735,815</b>	<b>46,590,615</b>	<b>290,583,700</b>	<b>176,131,100</b>	<b>260,412,500</b>	<b>149,764,000</b>	<b>1,033,253,900</b>	<b>1,956,735,815</b>
<b>Revenues</b>								
Federal	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0
CCSF GO Bonds/COFS	400,000,000	0	200,000,000	0	0	0	200,000,000	400,000,000
Revenue Bonds <sup>2</sup>	150,000,000	0	0	0	150,000,000	0	0	150,000,000
Revenue	249,772,737	46,590,615	20,000,000	20,600,000	21,218,000	21,854,540	119,509,582	249,772,737
Other	0	0	0	0	0	0	0	0
<b>Revenues Total</b>	<b>399,772,737</b>	<b>46,590,615</b>	<b>220,000,000</b>	<b>20,600,000</b>	<b>171,218,000</b>	<b>21,854,540</b>	<b>319,509,582</b>	<b>799,772,737</b>
<b>Shortfall</b>	<b>(1,556,963,078)</b>	<b>0</b>	<b>(70,583,700)</b>	<b>(155,531,100)</b>	<b>(89,194,500)</b>	<b>(127,909,460)</b>	<b>(713,744,318)</b>	<b>(1,156,963,078)</b>
To be funded with debt, additional revenues, and/or deferring expenditures								

## Notes

<sup>1</sup> Total reflects project costs and excludes financing costs.

<sup>2</sup> Presentation is on a fiscal year basis. Does not represent actual schedule for debt issuance. Excludes financing costs.



## Section **4** | Appendix

- i. Administrative Code Section 3.20
- ii. Capital Plan Program Criteria
- iii. Election Year Calendar

## **i. Administrative Code Section 3.20**

### **SEC. 3.20. CAPITAL EXPENDITURE PLAN.**

By March 1 of each year, the City Administrator shall annually submit to the Mayor and Board of Supervisors a ten-year capital expenditure plan which shall include an assessment of the City's capital infrastructure needs, investments required to meet the needs identified through this assessment, and a plan of finance to fund these investments. By May 1 of each year, the Mayor and Board of Supervisors shall annually review, update, amend, and adopt by resolution the ten-year capital expenditure plan.

The capital expenditure plan shall include all recommended capital project investments for each year of the plan. The plan shall incorporate all major planned investments to maintain, repair, and improve the condition of the City's capital assets, including but not limited to city streets, sidewalks, parks, and rights-of-way; public transit infrastructure; airport and port; water, sewer, and power utilities; and all City-owned facilities.

The capital expenditure plan shall include a plan of finance for all recommended investments, including proposed uses of General and Enterprise Funds to be spent to meet these requirements. Additionally, the plan shall recommend the use and timing of long-term debt to fund planned capital expenditures, including General Obligation bond measures.

The capital expenditure plan shall include a summary of operating costs and impacts on City operations that are projected to result from capital investments recommended in the plan. This operations review shall include expected changes in the cost and quality of City service delivery.

The plan shall also include a summary and description of projects deferred from the ten-year capital expenditure plan given non-availability of funding necessary to meet assessed capital needs. (Added by Ord. 216-05, File No. 050920, App. 8/19/2005) (Former Sec. 3.20 added by Ord. 223-97, App. 6/6/97; amended by Ord. 55-98, App. 2/20/98; repealed by Ord. 216-05)

### **SEC. 3.21. CAPITAL PLANNING COMMITTEE.**

There is hereby created a Capital Planning Committee consisting of the City Administrator as chair, the President of the Board of Supervisors, the Mayor's Finance Director, the Controller, the City Planning Director, the Director of Public Works, the Airport Director, the Executive Director of the Municipal Transportation Agency, the

General Manager of the Public Utilities System, the General Manager of the Recreation and Parks Department, and the Executive Director of the Port of San Francisco. Each member of the Capital Planning Committee may designate a person to represent her or him as a voting member of the Committee. Such designations shall be in written documents signed by the designating member and filed with the City Administrator, or her or his designee.

The mission of the Capital Planning Committee is to review the proposed capital expenditure plan and to monitor the City's ongoing compliance with the final adopted capital plan. As such, the Capital Planning Committee shall (1) establish prioritization and assessment criteria to assist the City Administrator with the development of the capital expenditure plan, (2) annually review the City Administrator's proposed capital expenditure plan prior to its submission to the Mayor and Board of Supervisors, and (3) review the annual budget and any proposed use of long-term debt, including General Obligation bonds, to ensure compliance with the adopted capital expenditure plan.

The Board of Supervisors shall not place on the ballot, or authorize the issuance of any long term financing, until the Capital Planning Committee completes a review of the proposal and submits its recommendation to the Board of Supervisors. Each proposal shall be in form and substance satisfactory to the Committee, and shall be accompanied by descriptive financial, architectural, and/or engineering data, and all other pertinent material in sufficiently complete detail to permit the Committee to review all aspects of the proposal. The Committee shall submit a written report to the Mayor and the Board analyzing the feasibility, cost, and priority of each proposal relative to the City's capital expenditure plan.

The Chair of the Capital Planning Committee is hereby authorized to adopt such rules, definitions, and procedures as are necessary to meet the requirements described in Section 3.20 and 3.21. (Added by Ord. 216-05, File No. 050920, App. 8/19/2005) (Former Sec. 3.21 added by Ord. 223-97, App. 6/6/97; repealed by Ord. 216-05)

## ii. Prioritization Criteria

### 1. Cash Program Criteria

The Plan adopts the principal that the maintenance and good repair of the City's assets is primary and those annual appropriations for renewal projects are of the highest priority. The following describes the criteria and poses questions to determine if a capital improvement project (CIP) qualifies.

Criteria	
Ensures the timely maintenance and renewal of existing buildings and infrastructure	Priority 1
Provides enhancements to existing buildings and infrastructure that are best financed with cash	Priority 2

#### **Ensures the timely maintenance and renewal of existing facilities and infrastructure**

- Projects conform to the Plan predicted by the Renewal system?
- Is other work triggered by this activity, is it included?
- Are there legal requirements for action?

#### **Provides enhancements to existing buildings and infrastructure that are best financed with cash**

- Is the project small enough that cash financing is appropriate?
- If so, the Debt Program Criteria should be used to rank multiple proposals

## 2. Debt Program Criteria

The purposed of the debt program criteria is to evaluate proposals for long-term financing. With the 10-year Capital Expenditure Plan in place as a guide to financing, the City can develop long-term financing strategies and better plan GO bond or other financing proposals. The following criteria table is followed by detail descriptions and questions used to determine if a project qualifies.

Criteria	
Provides for the life, health, safety and security of occupants and the public	Priority 1
Occupancy and Operation of the Facility is essential to the City's operation, especially in an emergency	Priority 2
Improvement is necessary to comply with a federal, state, or local mandate	Priority 3
Mitigates an environmental hazard or improves environmental health	Priority 4
Preserves historic buildings and neighborhood character	Priority 5
Supports programs or objectives of an adopted plan or action by the Board and Mayor	Priority 6
Enhances the City's economic vitality by increasing revenue in support of the facility and operations	Priority 7
Failure to implement project risks potential loss of the City asset's value	Priority 8
Improves government effectiveness by improving service or reducing operating costs	Priority 9

### **Provides for the life, health, safety and security of occupants and the public.**

The CPC should consider whether capital projects minimize physical danger to those who use and work in City facilities, including protection during seismic events.

- What risk is mitigated by this improvement? What is the seismic rating of the facility? Are there legal requirements for action? Is occupancy optional or required (i.e. Jail)? Is occupancy required due to function (i.e. Hospital)? Is occupancy optional? Can program be provided at another location?

### **Occupancy and Operation of the Facility is essential to the City's operation, especially in an emergency.**

Hospitals, Police and Fire Stations are considered essential for emergency response. Other facilities are essential to the delivery of government services to the citizens and visitors of San Francisco, such as City Hall.

- Is the facility needed for emergency services response in a major event? If not an essential facility as determined by CBC Title 24, what essential services are provided? How will that service be provided during the proposed renovation/replacement?

**Improvement is necessary to comply with a federal, state, or local legal mandate.**

The City faces a wide range of directives to improve its facilities, which have different levels of urgency and consequences if unmet.

- What is the mandate? Is there a judgment or court order requiring action? What are the consequences if not met? By what year? Is the City at risk of litigation for failure to perform? How?

**Mitigates an environmental hazard or improves environmental health.**

This criterion would be used to determine whether a project reduces the impact of hazardous materials, air quality issues, and other threats to the health of its users.

- What is the health risk identified? Is the hazardous material stabilized or removed? Are occupants currently protected from exposure?

**Preserves historic buildings and neighborhood character.**

Many of the City's facilities are important to the neighborhood in which they reside, or to the City as a whole. Maintaining the historic character and fabric of the City is one of the eight priorities of the City's General Plan.

- Is the facility an historic landmark? Is the facility of significant historic or architectural character? What is the impact of the facility on neighborhood character?

**Supports programs or objectives of an adopted plan or action by the Board and Mayor.**

Ideally, capital investments will be coordinated with departments' long-term goals and objectives.

- What Plan is implemented by the proposed CIP? Did BOS and Mayor adopt the plan? On what date? What objectives are met with implementation of this improvement?

**Enhances the City's economic vitality by increasing revenue in support of the facility and operations.**

Some projects have a direct or indirect effect on the City's revenues or expenditures. Cost savings or revenue enhancement may help offset the cost to the City of some capital investments. Alternatively, the City should consider any new operating costs associated with capital investments.

- Are there new revenues created as a result of the CIP? Does the CIP increase direct revenues to the department? Does the CIP increase indirect revenues? Which revenue streams are affected? Tourism? Other?

**Failure to implement project risks potential loss of a City asset's value.**

Maintaining the City's infrastructure is imperative, however the lack of maintenance or improvements at some facilities will have a greater effect on the City's asset value.

- What is the replacement cost of the facility? What is the effect on the asset value of the facility if work is delayed? What is the potential loss to the City if work is not performed? What is the effect to programs if the facility is decommissioned?

**Improves government effectiveness by improving service or reducing operating costs.**

A primary goal of capital investments is to improve the delivery of government's services and the efficiency of department operations.

- Will the CIP decrease the operations cost for maintenance? How? Will the CIP decrease the operations cost for services? How? Will the CIP improve delivery of services? How?

### iii. Election Schedule

#### **Consolidated (Gubernatorial) Primary Election 06/06/06**

Governor (Partisan Offices)

Lt. Governor (Partisan Offices)

U.S. Senator (Partisan Offices)

U.S. Representative in Congress (Partisan) (Dist 8 & 12)

Secretary of State (Partisan)

Controller (Partisan)

Member of Assembly (Partisan) (Dist 12 & 13)

State Senator (Partisan) (even numbered districts, 8<sup>th</sup> district)

Treasurer (Partisan)

Attorney General (Partisan)

Insurance Commissioner (Partisan)

Member, State Board of Equalization (Partisan) (District 1)

Superintendent of Public Instruction (Nonpartisan Office)

County Central Committee – Democrat 12<sup>th</sup> and 13<sup>th</sup>, Republican 12<sup>th</sup> and 13<sup>th</sup>, Green  
County Council(at

large), Peace and Freedom 12<sup>th</sup> and 13<sup>th</sup>, American Independent 12<sup>th</sup> and 13<sup>th</sup>. - LOCAL

Superior Court Judges (Nonpartisan Office) - LOCAL

#### **Consolidated (Gubernatorial) General Election 11/07/06**

Governor (Partisan Offices)

Lt. Governor (Partisan Offices)

U.S. Senator (Partisan Offices)

U.S. Representative in Congress (Partisan) (Dist 8 & 12)

Secretary of State (Partisan)

Controller (Partisan)

Member of Assembly (Partisan) (Dist 12 & 13)

State Senator (Partisan) (even numbered districts, Dist 8)

Treasurer (Partisan)

Attorney General (Partisan)

Insurance Commissioner (Partisan)

Member, State Board of Equalization (Partisan) (District 1)

Superintendent of Public Instruction (Nonpartisan Office)

BART Director (District # 8) -

Assessor- Recorder – Citywide - LOCAL

Board of Supervisors– (Districts 2,4,6,8,10) - LOCAL

**Consolidated (Gubernatorial) General Election 11/07/06 (continued)**

Board of Education – Citywide (3 seats) - LOCAL

Community College Board – Citywide (3 seats)- LOCAL

Public Defender- Citywide - LOCAL

**Municipal Election 11/06/07**

Mayor

District Attorney

Sheriff

**Consolidated Presidential Primary Election 06/03/08**

President

U.S. Senator

U.S. Representative in Congress Dist 8 & 12

State Senator (odd numbered districts, Dist 3)

State Assembly Dist 12 & 13

County Central Committee - Local

Superior Court - Local

**Consolidated Presidential General Election 11/04/08**

President

U.S. Senator

U.S. Representative in Congress District 8 & 12

State Senator, District 3

State Assembly District 12 & 13

BART Director District 7 & 9

Board of Education: (4)

Board of Supervisors-Odd # Dist.

Community College Bd. (4)

**Municipal Election 11/3/09**

City Attorney

Treasurer

**Consolidated (Gubernatorial) Primary Election 06/08/10**

Governor

Lt. Governor

U.S. Senator (Partisan Offices)

U.S. Representatives in Congress Dist 8 & 12

Secretary of State

Controller

State Assembly Dist 12 & 13

**Consolidated (Gubernatorial) Primary Election 06/08/10 (continued)**

State Senate District 8

State Treasurer

Attorney General

Insurance Commissioner

Superintendent of Public Instruction

Member, State Board of Equalization, District 1

County Central Committee

Superior Court:

**Consolidated (Gubernatorial) General Election 11/02/10**

Governor

Lt. Governor

U.S. Senator (Partisan Offices)

U.S. Representatives 8<sup>th</sup> & 12<sup>th</sup>

Secretary of State

Controller

State Assembly 12<sup>th</sup> & 13<sup>th</sup>

State Senate District 8

State Treasurer

Attorney General

Insurance Commissioner

Superintendent of Public Instruction

Board of Equalization

BART Director District 8

Board of Supervisors--Even # Dist.

Board of Education (3)

Community College Board (3)

**Municipal Election 11/08/11**

Mayor

District Attorney

Sheriff



